SUPERSCRIPT™ 750C

User's Guide

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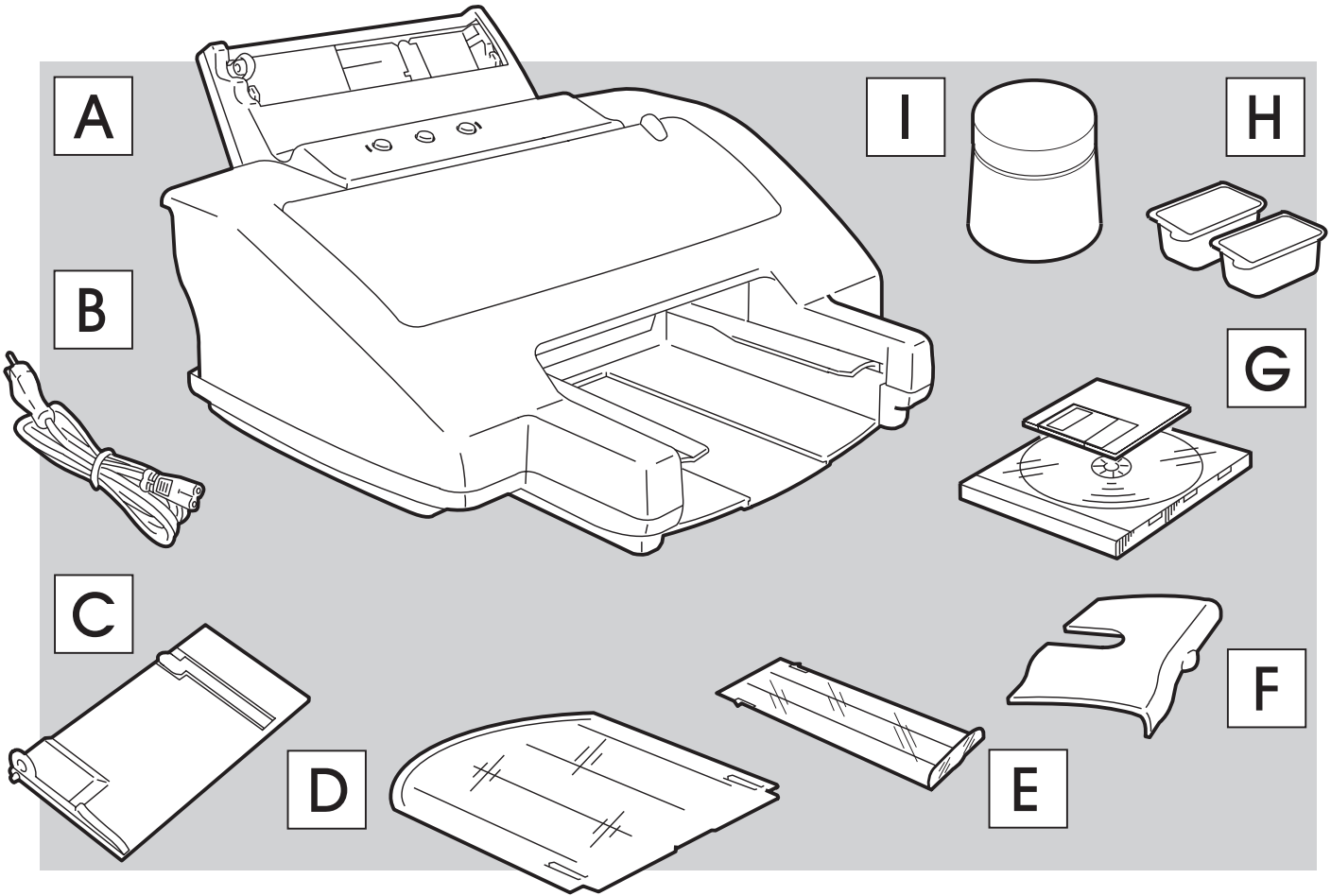
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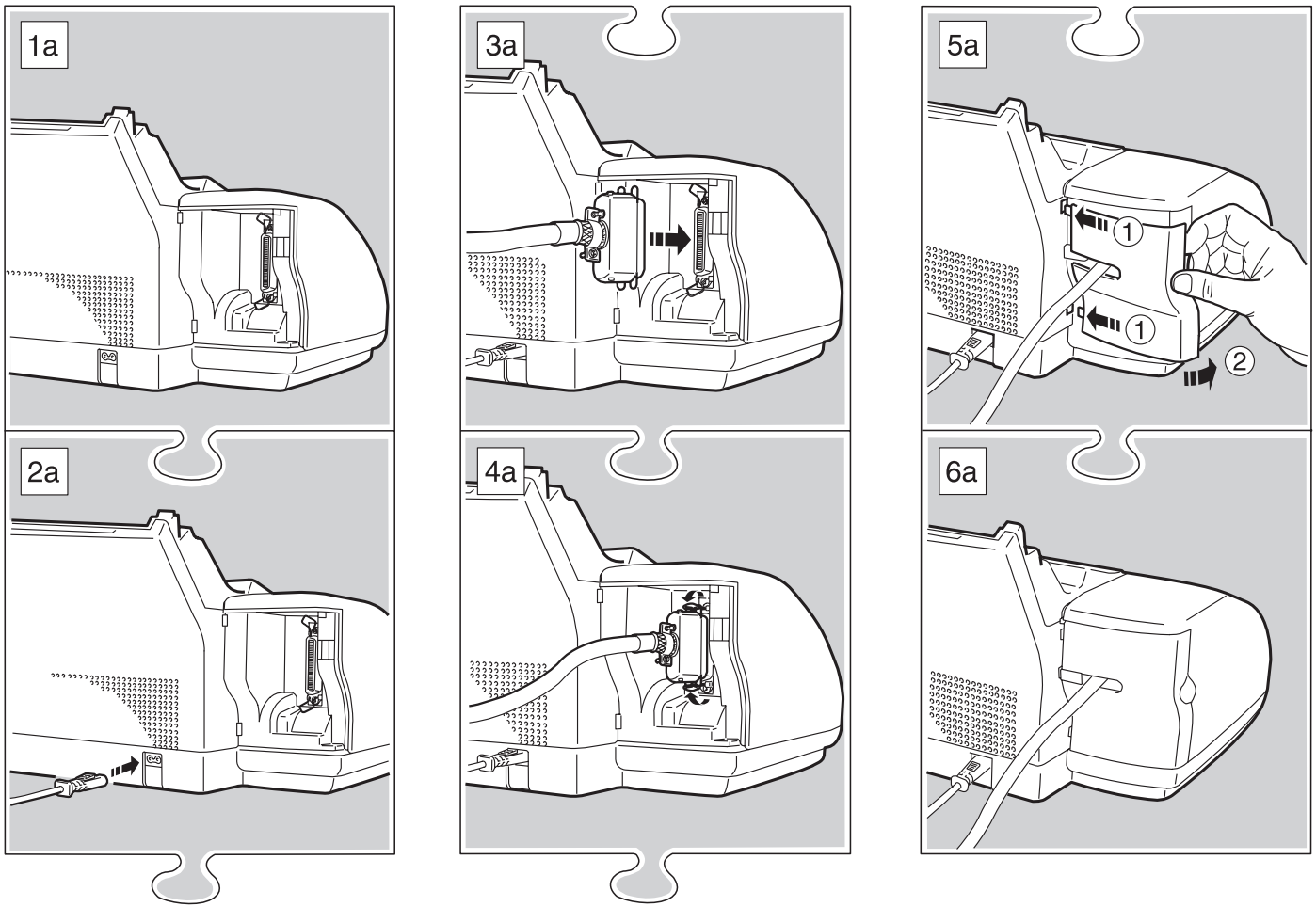
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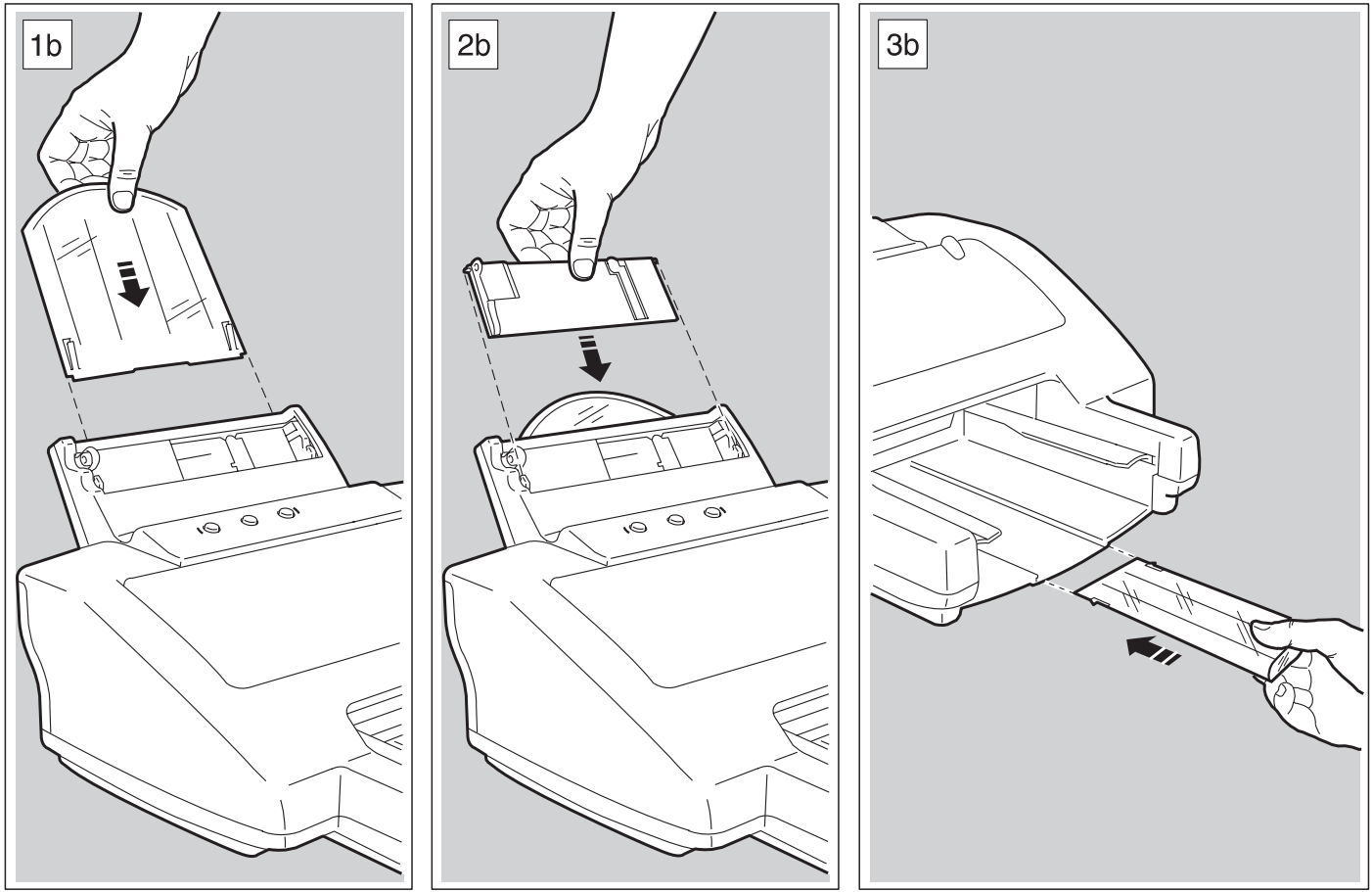
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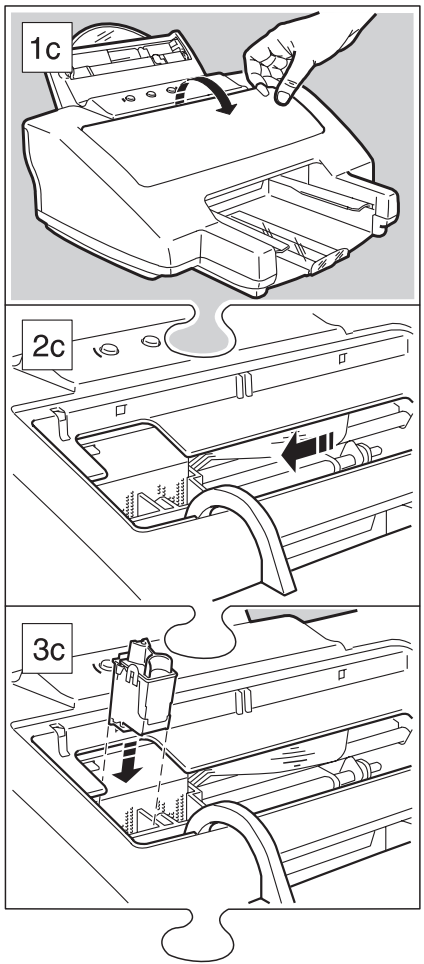
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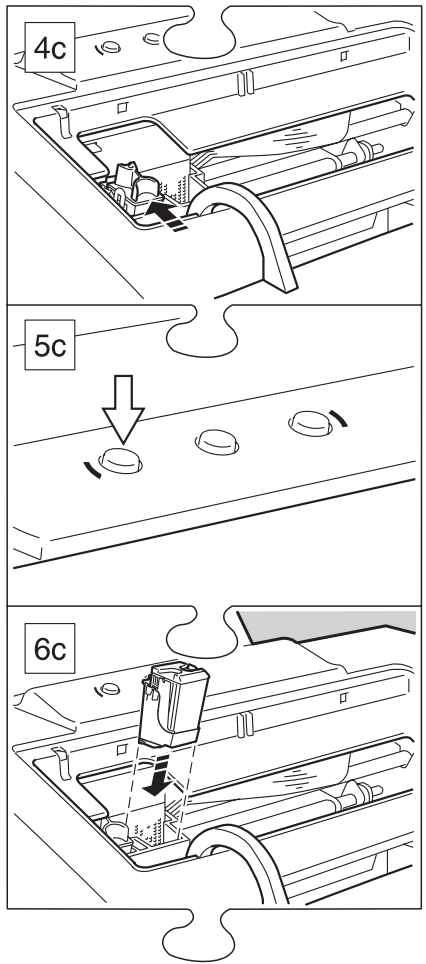
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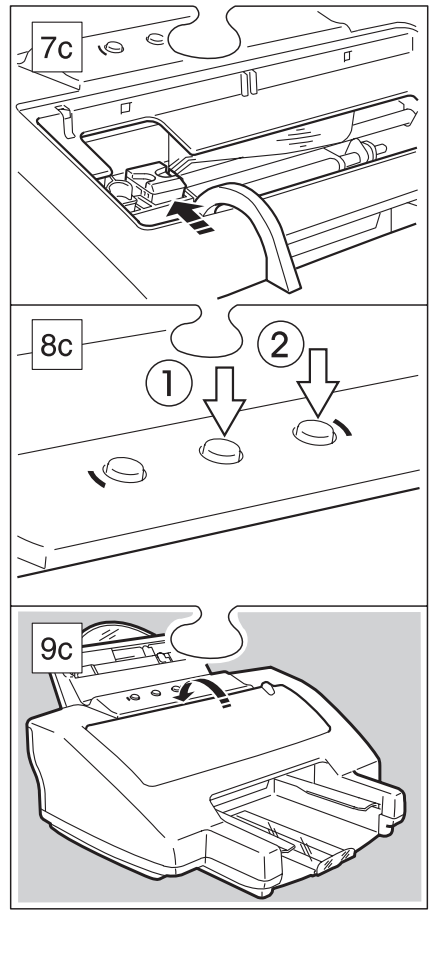
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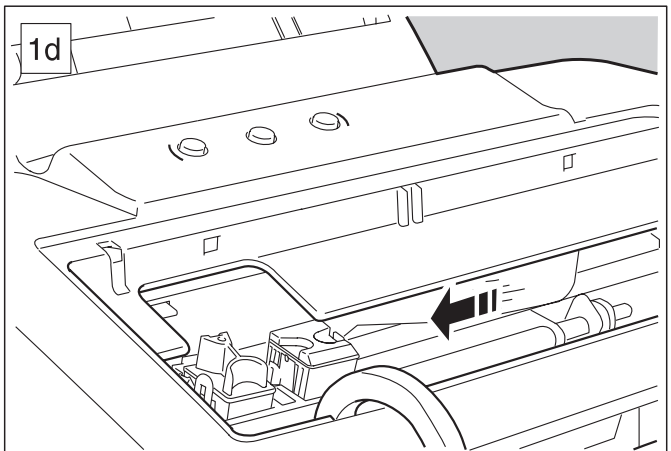
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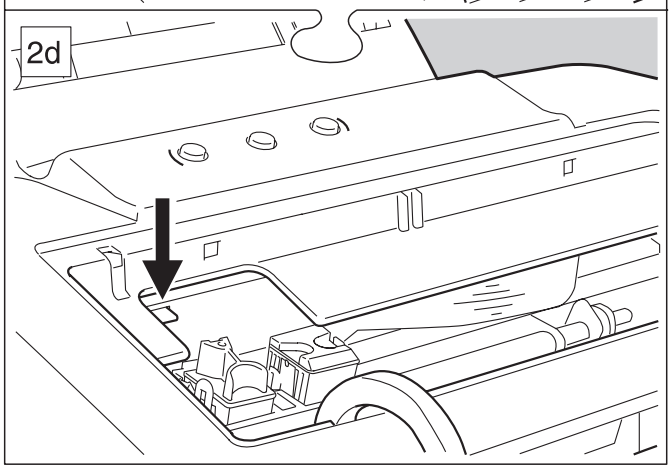
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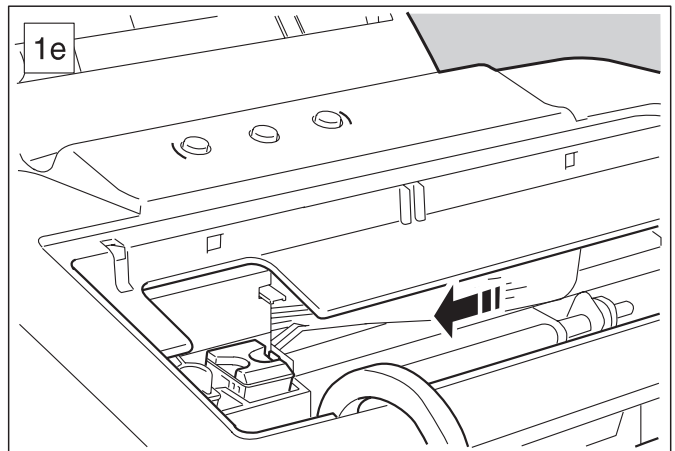
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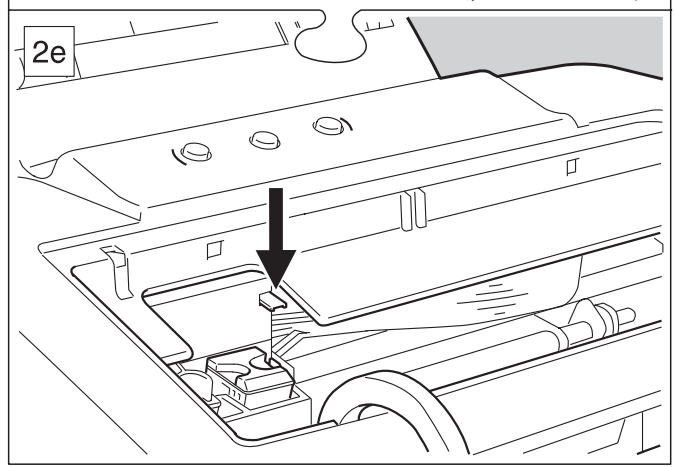
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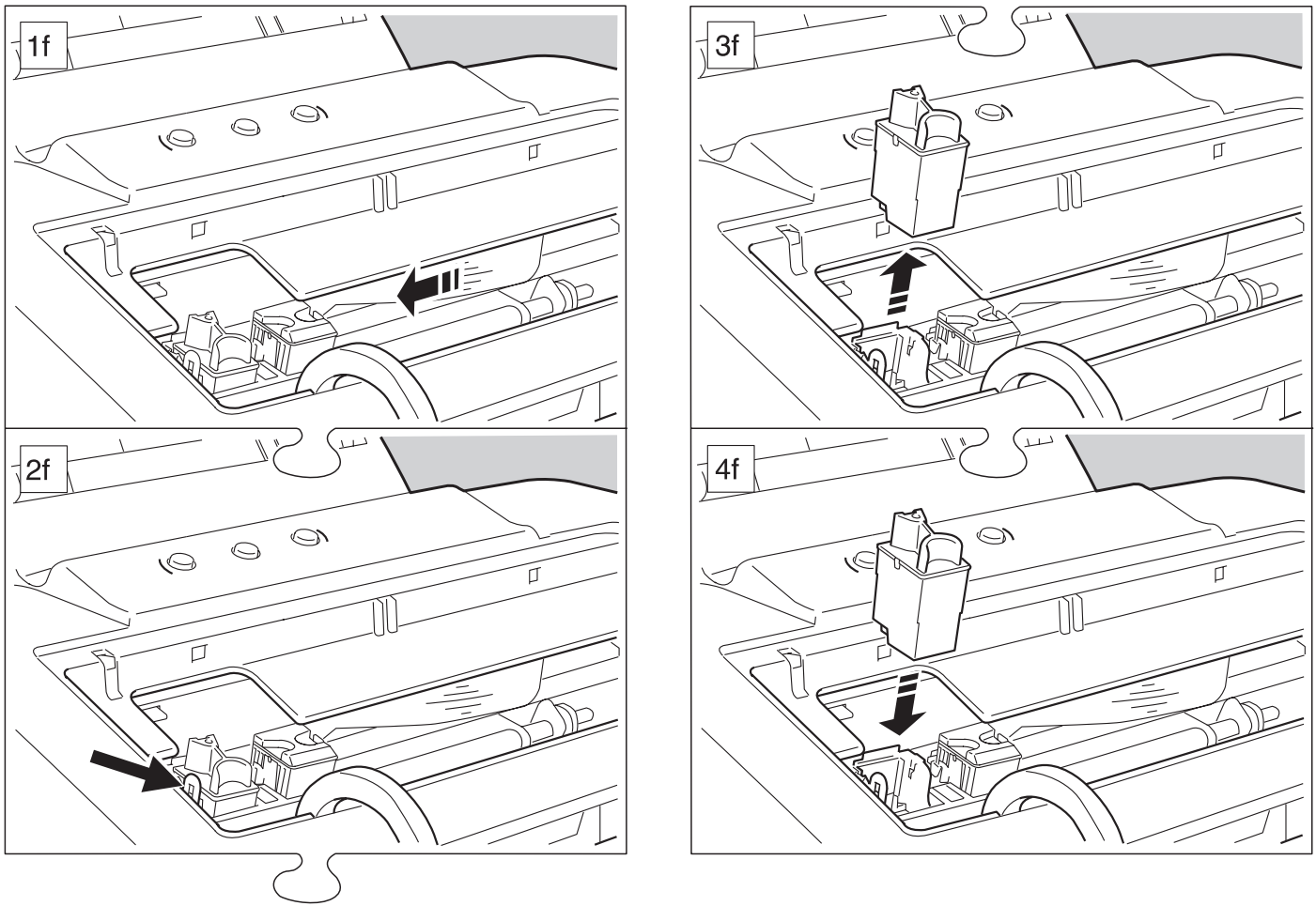
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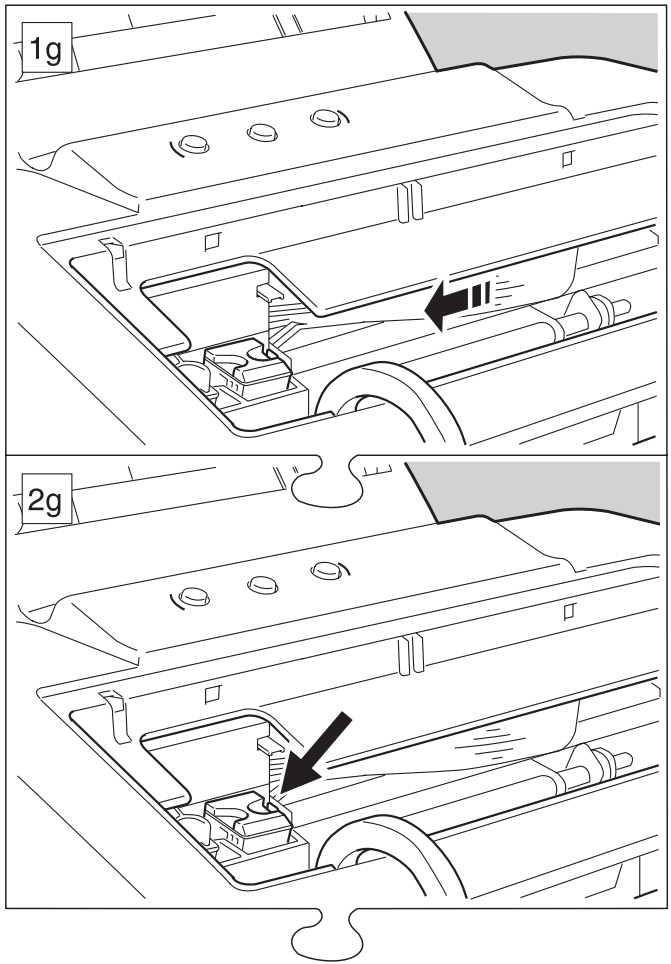
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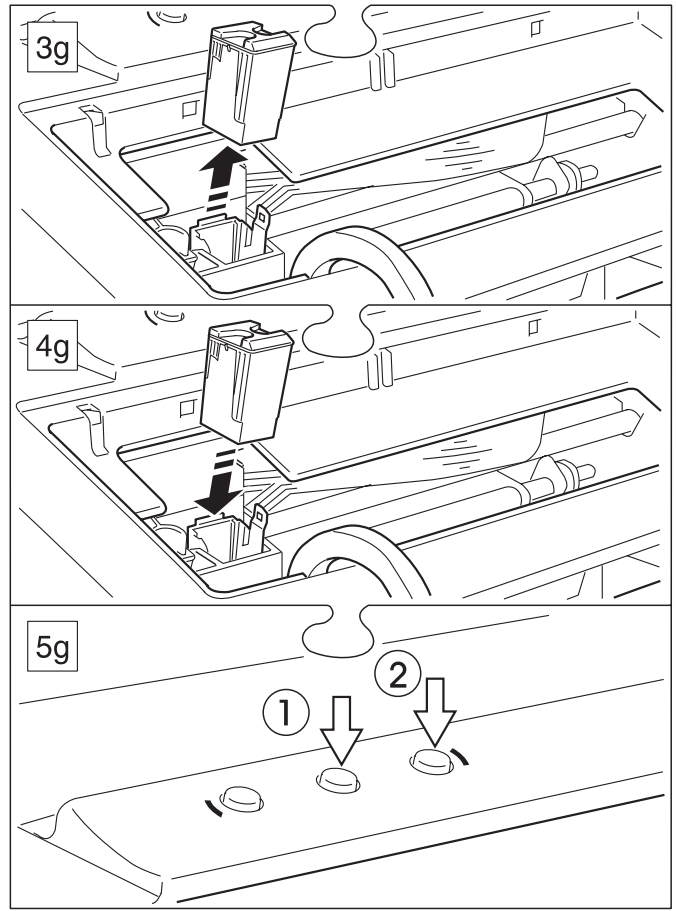
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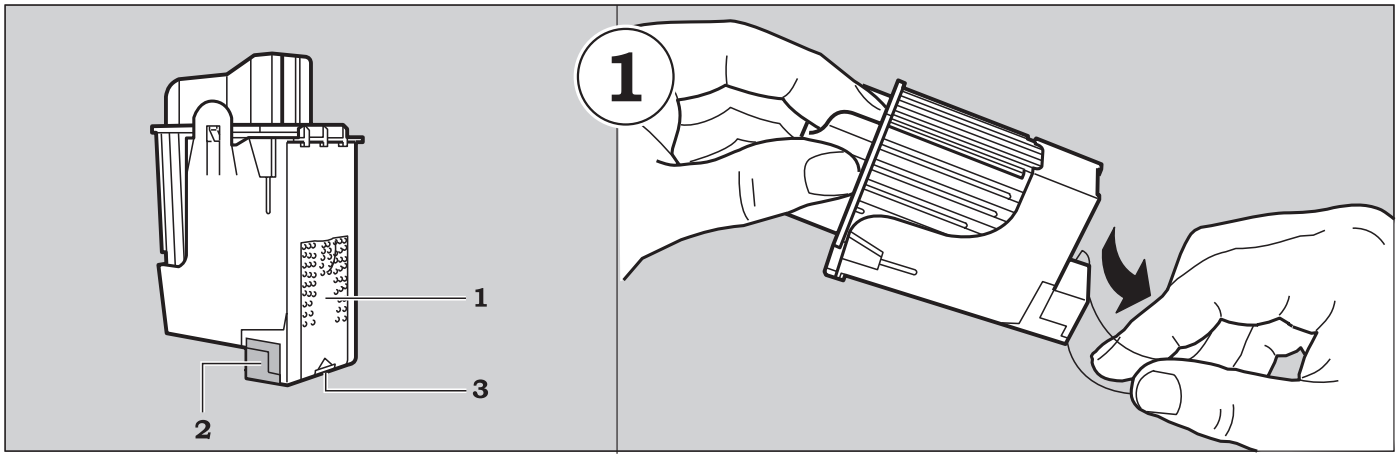
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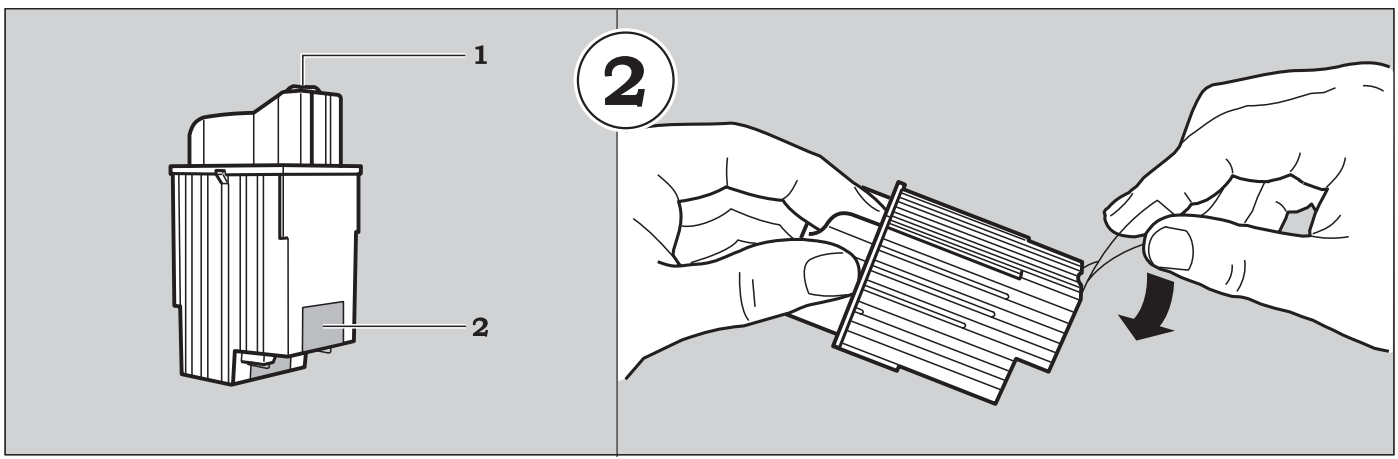
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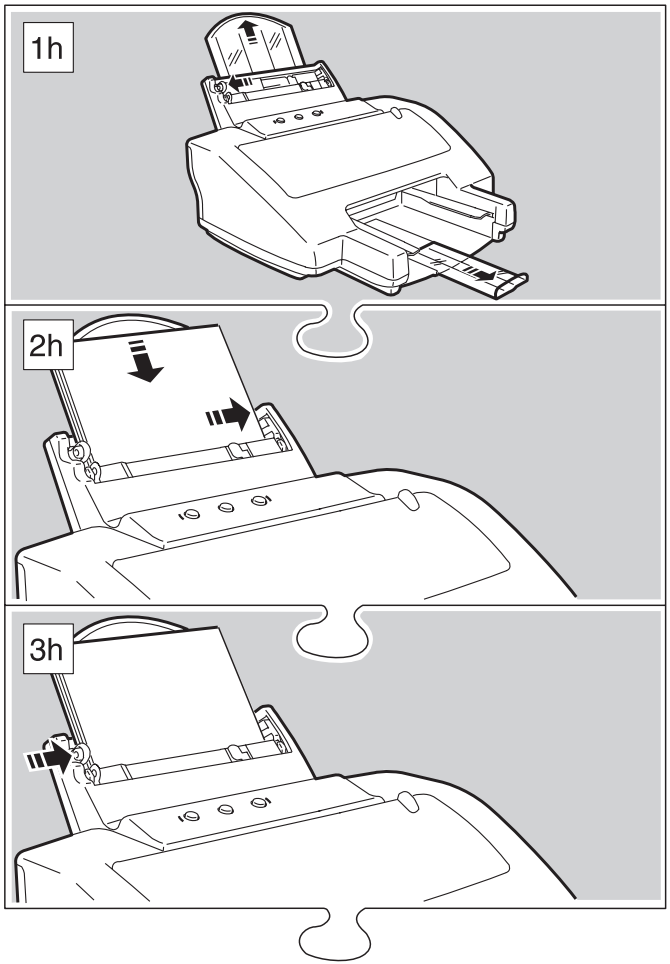
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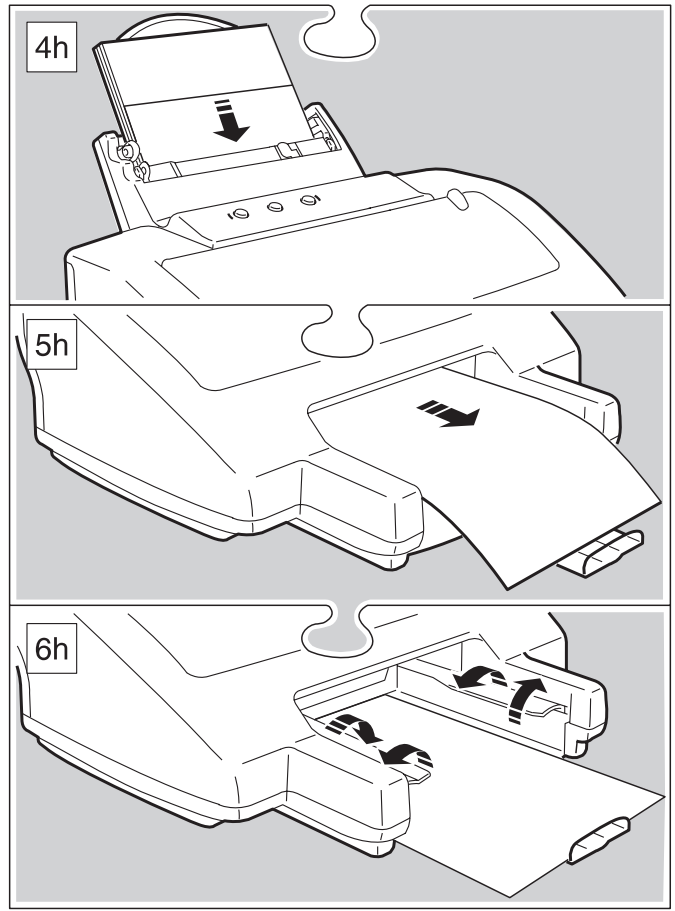
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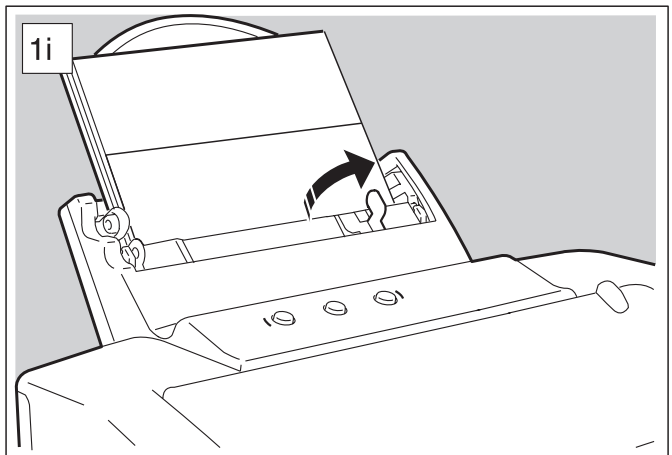
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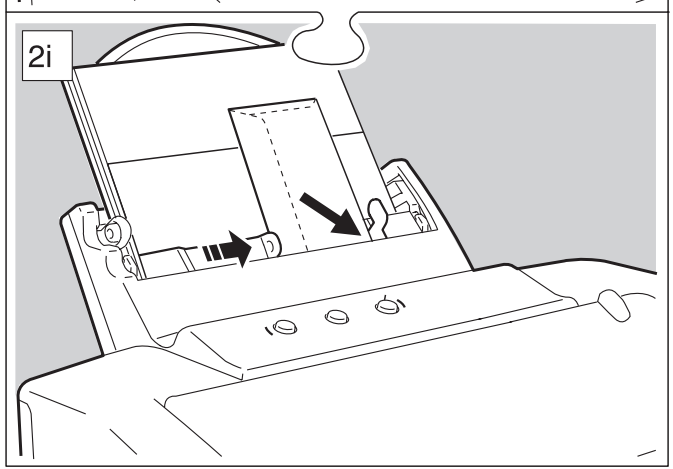
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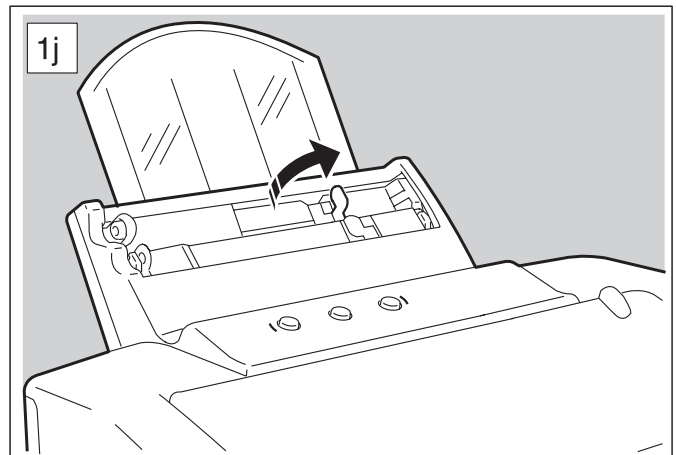
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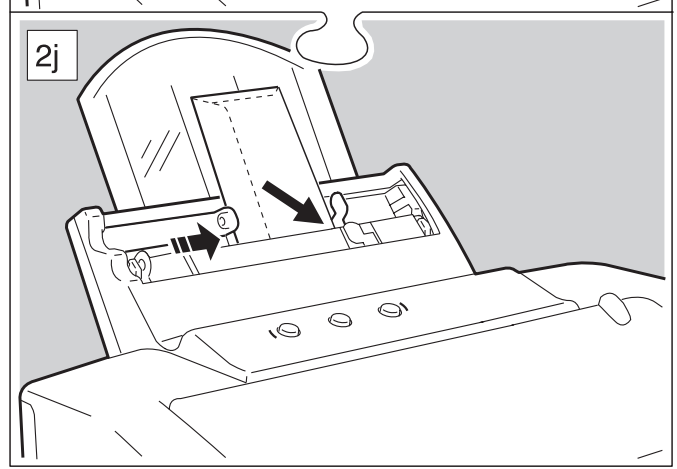
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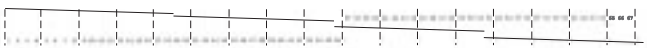
Print Head Type (Black) : 9000 Hz Refill
Print Head Test

Nozzles test Pass

Print Head Type (Color) : 5000 Hz Refill
Print Head Test

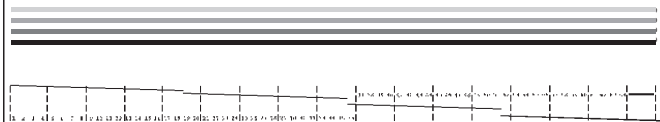


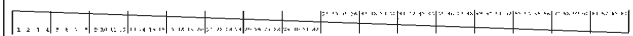
Nozzles test Pass

SETUP

PAPERFORMAT :	*A4*
PAPDEV :	*ASFT*
PERSKIP :	*OFF*
TEXTSCALE :	*OFF*
BIMDENSITY :	*300*
TERMINATOR :	*NORMAL*
QUALITY :	*LQ*
WIDTHTYPE :	*NORMAL*
ORIENTATION :	*PORTRAIT*
TYPESTYLE :	*1 Courier Upright 10 cpi / 12 pts*
CHARSET :	*1 CP 437 International*

Print heads nozzle test





Welcome to the *colourful* world of ...

.. professional ink jet printers

Two Print Heads
4-colour and monochrome
print heads

Print Quality
Up to 600 x 600 dpi in monochrome
and colour printing

Throughput
High performance monochrome combined
with high quality colour printing

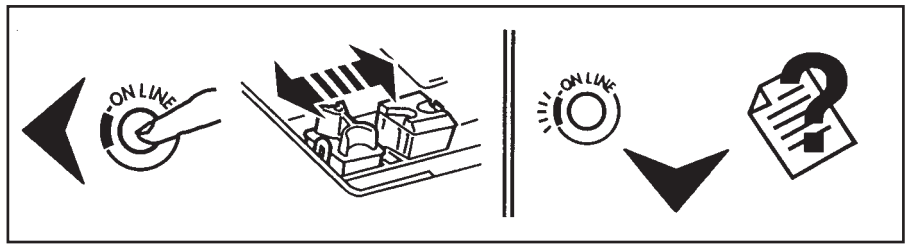
Paper Handling
High capacity automatic sheet feeder
handling all paper types

Paper Sizes
A4 / A5, US Letter / Legal / Executive,
Small formats (A6, note cards)
Envelopes COM10, DL, C5/C6

Paper Types
Plain office paper,
Coated paper, Glossy paper, Films

Interface
Parallel Bidirectional Centronics (Plug and Play)
Option : serial interface adaptor

Software
Optimized intelligent colour driver for
MS-Windows® environment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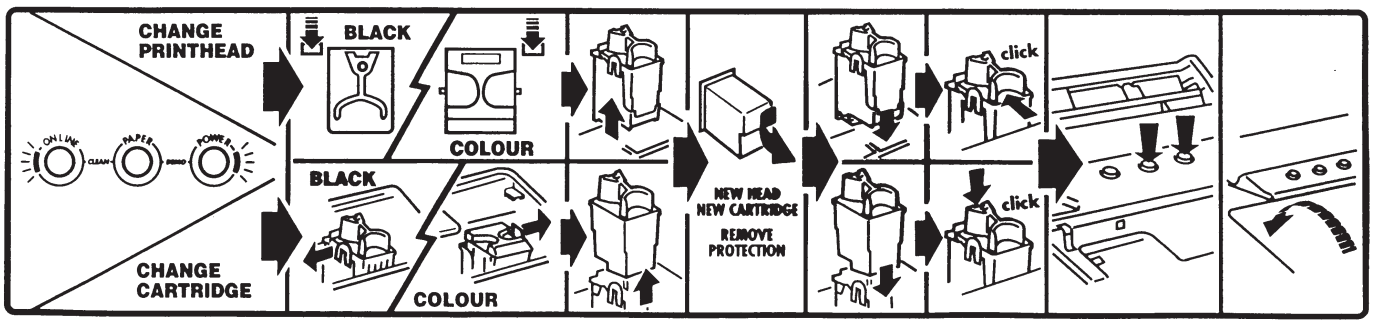
ON LINE


CHANGE PRINTHEAD
BLACK
COLOUR
ON LINE
CLEAN
PAPER
POWER
BLACK
CHANGE CARTRIDGE
COLOUR
NEW HEAD
NEW CARTRIDGE
REMOVE PROTECTION
click
click

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Preface

This manual is structured in several sections:

- illustrations,
- instructions, consisting of:
  - a **Quick Start**,
  - a **User Guide**,
  - a **Troubleshooting Guide**,
- **Glossary** of terms, **Appendices** and an alphabetical **Index**.

Quick Start

Unpacking and identifying the printer parts

Connecting your printer

Inserting the document supports

Loading paper

Inserting the print heads

Installing printer software

Preparing the printer using the printer monitor

Help

User Guide

User Interface
- Software printer monitor, indicating print job status and containing a series of printer care functions.
- Printer operator panel, giving the functions of the light indicators and keys.
- Templates, embossed on the printer casing, indicating carriage movement, paper out condition and print head insertion/removal procedures.

Ink Jet Print Heads
- How to insert/remove the ink jet print heads in/from the printer, how to clean them and preserve optimum print quality.

Paper
- Characteristics of the paper you can use in the printer.
- Use of document supports.
- Usable print area.

Using Software
- Description of the printing system interface and printer monitor
- How to change the printer settings via the printer driver settings or the printer set-up utility.

Troubleshooting Guide

- Lists a series of common problems and their solution.
- Indicates how to obtain the print test and hexdump.

Appendices

Product characteristics, parameters and command codes.

Refer to the appropriate chapter of the user guide whenever you encounter a problem.

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D. Product Characteristics

E. Getting Service and Support

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Quick Start

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Quick Start

This section is a rapid guide for installing your printer and preparing it for use. It contains a sequence of operations which should be *performed in the order described*.
More detailed information about the printer features and functions is given in the User Guide.

Unpacking

Keep the carton and all the packing materials in case you have to repack or ship the printer.

Carton contents

As well as this instructions manual and the NEC Media Sample Pak, the packing carton also contains (***see figure on page I***):

A - Printer
B - Power cable
C - Manual feeder document support
D - ASF document support
E - Output tray extension
F - Interface socket cover
G - Diskette and CD
H - Ink jet print heads
I - Print head storage box

As soon as you have removed the printer and its accessories from the packing carton, check that all the parts ordered have been delivered and are undamaged. If anything is missing or damaged, contact your local retailer immediately.

The interface cable for connecting the printer to your PC is NOT supplied with the printer.

1. Place the printer on an ample, stable surface near your computer or work station.
2. Make sure that there is enough space around the printer for all its parts to be accessed comfortably.
3. Make sure that there is a convenient independent electrical power supply socket to which you can connect the printer.
4. ***Do NOT leave the printer exposed to direct sunlight or heat sources, or in dusty, dirty or poorly ventilated environments.***

Identifying the Printer Parts

Take a few minutes to study your printer and identify its parts. Refer to the figures in the first section of the manual.

Connecting Your Printer

To the electrical power supply

Your printer has no* ON-OFF *switch; once it is connected to the electrical power supply, it is powered by pressing the* POWER *key on the operator panel, so make sure that it is on a stable surface and that the cover is closed.

1. Insert the power cable in the two-pin connector on the rear of the printer (***see figure 2a on page II***),

2. Plug the printer power cable into a wall socket.
   The socket outlet shall be installed near the equipment and shall be easily accessible.

Make sure the electrical power supplied has the voltage indicated on the electrical data plate on the base of the printer.

If the electrical data plate indicates a different voltage, call your local retailer immediately. DO NOT, UNDER ANY CIRCUMSTANCES, CONNECT THE PRINTER TO THE ELECTRICAL POWER SUPPLY.

Make sure that the plug on the power cable of the printer is of the type accepted by the wall socket you intend to use; if it is not, call your local retailer.

Do NOT attempt to change the plug yourself.

The manufacturer declines all responsibility for accidents to persons or damage to the printer arising from the non-observance of this warning.

To your computer

See figures 3a to 5a on page II.

The interface cable is not supplied with the printer; consult your systems engineer or retailer for advice on the type of cable you require.

Make sure that your computer/host system is switched off and that the printer is not powered.

1. *The interface socket cover, which covers the parallel interface cable, is in the accessories kit delivered in the printer packaging.*

2. Plug the interface cable connector into the socket and, if necessary, close the spring clips on it.

3. Mount the socket cover over the interface connector.

4. Connect the other end of the interface cable to the appropriate interface connector socket (port) on your computer/host system.

5. Press the **POWER** key on the printer operator panel and switch on your computer.

   The printer will take a few moments to execute a series of internal checks. It will be in ON LINE condition (both light indicators will be lit).

   After approximately 2 minutes of inactivity, the printer will go into "standby" mode. In standby mode, the print head carriage returns to and remains in its rest position at the right hand end of its path and there is a reduction in the power consumption (the light indicators on the operator panel remain lit). To reactivate the printer, just send a file to be printed or start any other printer operation.

Inserting the Document Supports

See figures 1b, 2b and 3b on page III.

Remove the document supports from their packaging (which should be kept, with the other packing material, in case you need to repack your printer for relocation).

Document support for ASF (figure 1b)

With the rounded part of the guide as the top edge, insert the document support in the slot on the rear of the ASF so that it slides into the casing.

When using the ASF, pull the support upwards so that the document format you intend to load is fully sustained (***see figure 1h on page IX***).

Document support for manual feed (figure 2b)

With the adjustable margin guide to the front left, insert the document support in the front of the ASF so that it sits in the grooves at the front and forms a second document insertion channel.

If you use narrow formats in the manual feed, you must open and use the intermediate right margin (***see figure 1i on page X***).

Output tray extension (figure 3b)

With the flat end towards the printer and the lip at the opposite end facing upwards, insert the tray extension in the groove in the center of the output tray.

Before starting to print, pull out the extension so that the tray accommodates the document format you are printing. The indicator (LTR, A4, LEGAL) should be level with the print casing (***see figure 1h on page IX***).

Loading Paper in the Printer

See the sequence of figures on page IX.

1. Holding the tab on the left edge of the guide on the ASF, move it to its extreme left position (physical left hand margin).

2. Fan the paper thoroughly.

3. Align the paper against the physical right hand margin and load it into the ASF, pushing it down carefully until it stops inside the printer.

The ASF can contain up to 120 x 21 lbs single sheets of plain paper. For other types of documents and envelopes, see "Paper" in the User Guide.
Do NOT add paper to that already in the ASF; always remove any existing paper and fan it together with the paper to be loaded.

4. Position the left guide against the left edge of the paper.

5. With the printer powered, press the **PAPER** key. A sheet of paper is inserted to the first print position (TOF - Top of Form). Press **PAPER** again, to make sure that the paper feeds smoothly without crushing or skewing. The paper will exit on to the output tray spoilers and will drop into the tray when **PAPER** is pressed again to load another sheet.

For further information on paper types, sizes, etc., see "Paper" in the User Guide.

Inserting the Print Heads

See the sequence of figures on page IV and the instructions on the inside of the cover (template on page XI).

The print head carriage on your printer is designed to hold two print heads: monochrome black, on the left; color, on the right. ***BOTH*** print heads ***MUST*** be inserted ***BEFORE*** attempting any printing operation. To insert the print heads, proceed as follows:

1. Make sure the printer is powered (if it is not, press the **POWER** key on the operator panel).

2. Open the sealed print head container of the ***monochrome*** print head and remove the instructions leaflet (which should be kept for future reference).

3. Remove the print head from the container, holding it by the thumb and finger grip (end opposite the protective film).

4. Remove the protective film from the print head (***point 2 in figure 1 on page VIII***).

Do not touch either the electrical contacts (golden area - point 1 of figure 1 on page VIII) or the printing nozzles (end opposite the finger/ thumb grip - point 3 of figure 1 on page VIII) nor sit the print head on either of them.

5. Open the printer cover; the print head carriage will move automatically to the head loading position for the ***monochrome*** print head (left hand chamber) and the light indicators will start flashing alternately.

6. With the electrical contacts (the golden area) of the print head towards the corresponding contacts in the housing on the print head carriage, insert the print head in its chamber.

7. Push the print head towards the rear of the printer to fix it in place.

8. Press the **ON LINE** key; the print head carriage moves to the left, to loading position for the ***color*** print head (right hand chamber).

9. Repeat points 2, 3, 4, 6, 7 of this section to insert the ***color*** print head.

10. To set the ink counter, press and hold **PAPER** and press **POWER** for at least two seconds; the **POWER** light indicator will flash three times to confirm that the counter is set. A sheet of paper will be inserted automatically and a nozzles test will be printed.

If the print head carriage returns automatically to its rest position at the right hand side of the printer during the print head insertion operation, just press the* ON LINE *key to bring it back to the head loading position.

11. Close the cover.
    The print head carriage will return automatically to its rest position, at the right hand side of the printer.

See "Ink Jet Print Heads" in the User Guide for further details on the handling, substitution and care of the print heads.

Installing Printer Software

Before installing your printer driver

The diskettes supplied with your printer contain a high quality color and monochrome ***printing system*** for both Windows® 3.1/3.11 and Windows® 95 environments.

If you are installing using the CD, please follow the instructions supplied with the NEC Media Sample Pak.

This advanced printing system includes :

- a ***printer driver*** which gives you access to all the printer features through easy-to-use property sheets,

- a ***printer monitor*** for easy access to Printing Status and Printer Care.

A ***printer set-up utility*** program, for personalized printer settings under DOS if necessary, is also included in the diskettes.

Before installing any printer driver, we strongly recommend that you make a back-up copy of the original diskettes (according to "Terms and conditions of the user license" included with the diskettes) and then use this copy for the installation procedure. This will allow you to keep the original diskettes as masters so that, should any problem arise with the back-up copy, you can make another copy.

❑ **Information file (README.TXT)**

Whenever necessary, latest information on the printer driver, or instructions updating this manual are included in an information file contained in the diskette(s). If present, the file will automatically be copied into the driver group that will be created during driver installation.

If you want to check this file directly from the diskette, you will find it in each language directory:

- under Windows® 3.1/3.11, open it through the “Write” application.
- under Windows® 95, open it through the “Wordpad” application, specifying the correct file extension (*.TXT)

❑ **System requirements**

- From Windows® 3.1 up to Windows® 95,
- PC 386 or later with at least 4 MBytes of RAM (8 Mbytes recommended for Windows® 95),
- 1 MByte of free disk space.

Printer Driver Installation Procedure

The installation procedure will vary, depending on the Windows® environment installed on your PC.

❑ **Windows® 3.1/3.11**

1. Start Microsoft Windows®.
   (If it is already running, make sure that all Windows application tasks are closed before starting to install the driver.)
2. Insert the driver diskette in drive **A** (or **B**) of your PC.
3. From the **File** menu of the **Program Manager**, select the option “**Run...**”.
4. Type **A:\SETUP.EXE** (or B:) and press ENTER.
   The installation process starts.
5. Follow the instructions given in the sequence of windows displayed on your PC screen, until the driver is installed.
6. A group window with the driver name will be created automatically. It allows immediate access to the Spool Manager, the Printer Monitor, the Help and information files whenever these are required.

You can also install the printer driver through the “Add Printer” feature in the **Control Panel** in **Program Manager/Main**, proceeding as follows:

1. Insert the diskette in drive A (usually) of your PC.
2. Activate Microsoft Windows® environment (If it is already running, make sure that all Windows application tasks are closed before starting to install the driver.)

3. Activate the **Control Panel** in the **Main** window, clicking twice with your mouse indicator on the corresponding icon.

4. Select the **Printers** icon, in the same way.

5. If the **Installed Printers** box is empty, click on **Install..**

6. If the **Installed Printers** box already contains one or more driver names, click on **Add>>** , select **Install Unlisted or Updated Printer** in the **List of Printers** and then click on **Install...** .

7. Check that the **Install Driver** window already indicates the drive (usually A) in which you have inserted the driver diskette, otherwise, click on the drive name and change it, using your PC keyboard; click on **OK**.

8. The **Add Unlisted or Updated Printer** window contains the list of drivers present on the diskette. Select the driver with your printer name and click on **OK**.

9. Your driver is now installed and your printer name appears in the **List of Printers**.

10. With your printer name highlighted, click on the **Set as Default Printer** button, so that your printer will be active in all your Windows® applications.

11. Check your printer connection by clicking on the **Connect..** button.
    By default, your printer will be connected on the **LPT1** port which corresponds to the hardware connection of a **parallel** interface cable.

12. Click on the **Close** button of the **Printers** dialogue box.

❑ **Windows® 95**

The Microsoft Windows® 95 operating system allows automatic installation of peripherals through the "Plug & Play" feature, a bi-directional communication and hardware recognition procedure.

1. **Make sure that both printer and PC are powered**.

   The printer must NOT be in error mode, i.e. the indicator lights must not be flashing.

2. Activate Microsoft Windows® 95. If already started, execute the "Shut down" command and restart the computer.

3. A window opens, indicating that a new peripheral has been detected (**New Hardware found** and the printer name).
   The same window shows the **Driver from disk provided by hardware manufacturer** option already highlighted. Click the **OK** button.

4. With the **Install from Disk** window displayed, insert the printer driver diskette in the drive selected, specify this drive if requested and click **OK**.

5. The **Add Printer Wizard** window is displayed.
   If there are no other printer drivers already installed on your system, your printer will be installed as the Default printer.

   If other printer drivers are already installed, and you wish to install the current one as the default printer, click **Yes** and then the **Finish** button.

   The installation of the driver files will start.

6. At the end of the installation, you will be asked to remove the diskette and restart Windows.

A folder with the driver name will be created automatically in the **Programs** folder. It allows easy access at any time to the Printer Monitor, the Help and information files whenever these are required.

You can also install your driver through the **Add Printers** procedure. In this case, your printer need not be connected to your PC.

Do not install with the setup program.

1. Click **Start**, highlight **Settings**, and then click **Printers** in the sub-menu which opens.
2. Double click **Add Printer** in the **Printers** window.
3. The first in a series of **Add Printer Wizard** windows is displayed; click **Next >** .
4. Click **Have Disk...** in the window now displayed.
5. Insert driver diskette no. 1 in drive **A** (or **B**) of your PC; click **OK**.
6. Click **Next >** .
7. Make sure **LPT1: Printer port** is highlighted; click **Next >** .

   If you have an "ECP" computer, make sure that the port setting for the printer is set to Printer Port (LPTx) and not to ECP Printer Port (LPTx). If necessary, once the driver installation is completed, change the setting in your system properties, as follows:

   – right click on the **My Computer** icon,

   – select **Properties**, then **Device Manager**,

   – double click on **Ports (COM&LPT)**,

   – select **Printer Port: LPTx**.:

8. Click **Finish**.
   The installation of the driver files will start.
9. At the end of the installation, you will be asked to remove the diskette and restart Windows.

For more details on the printer driver, its parameters and the printer set-up, see "User Interface" and "Using Software" in the User Guide or consult your Windows® documentation.

Preparing your Printer using the Printer Monitor

Your printing system, i.e. the ***printer driver*** and the ***printer monitor*** is now installed. Before using your printing system, you must prepare your printer by performing two of the **Printer Care** functions contained in the Printer Monitor:

1. check the print accuracy (Align),
2. print a demo page (Demo).

How to access the Printer Monitor

❑ **Under Windows® 3.1/3.11:**

The Printer Monitor can be accessed from your printer group at any time: just double-click the specific icon.

❑ **Under Windows® 95:**

The Printer Monitor can be accessed at any time in either of the following ways:

1. Click **Start**, highlight **Programs** and then the printer name in the sub-menu which opens.
2. Click the Printer Monitor icon.

OR:

1. Click **Start**, highlight **Settings**, and then click **Printers** in the sub-menu which opens.
2. Click your printer name to highlight it.
3. Click your right mouse button.
4. Select the option "**Run the Printer Monitor**" in the menu which opens.

In both environments, the Printer Monitor will also be activated any time a print job is sent (in Windows® 95, the option "Show Monitor during Print" has to be already selected).

Use of the Printer Monitor

The Printer Monitor contains two tabs:

Status : which provides information on the file printing job, as well as on job and page printing progress.

Printer Care : which allows you to run four different "service" operations:

- Align : print head alignment (checking print accuracy),
- Clean : print head cleaning,
- Demo : printing of the "demo" page,
- Test : printing of the printer test page.

If you leave your Printer Monitor active, the status of your print jobs will always be displayed automatically.

Checking print accuracy (Align)

Whenever you insert a new print head or ink cartridge, you should always check the horizontal and vertical printing accuracy, to guarantee optimum printing quality. The Printer Monitor in your printing system makes this operation extremely easy:

Make sure your printer and PC are powered, your printing system is installed, both print heads are inserted and paper is loaded.

1. Open the Printer Monitor on your PC screen.
2. Click the **Printer Care** tab.
3. Click the **Align** button, then follow the instructions displayed.

Printing the “demo” page (Demo)

The demo page gives you a full color and black monochrome print-out and allows you to check the correct functioning of the print heads.

1. Check that you are still in the **Printer Care** tab of the Printer Monitor.
2. Click the **Demo** button, then follow the instructions displayed.

Once you have completed these two operations, you can close the Printer Monitor.

Help

To simplify the use of the printer, and to help you if you have problems, this printer has an extensive user interface:

- from your PC screen; the printing system installed from the diskette supplied contains a printer driver and Printer Monitor with user-friendly screen interfaces and a detailed Help file.
  For further details, see “User Interface” and “Using Software” in the User Guide.

- the flashing of one or both of the light indicators on the printer operator panel signals the need for operator intervention.
  For further details, see “Operator Panel” in the User Guide.

- two embossed templates (***see figures on page XI***), one on the printer casing under the cover, the other on the inside of the cover, illustrate certain operating procedures.
  For further details, see “Embossed Templates” in the User Guide.

Your printer is now ready for use. If you have problems with any operating procedure, or are unable to perform a specific function, always check that you have followed the instructions as given. If a repetition of the instructions is unsuccessful, see “Problems and Solutions” in the User Guide.

User Guide

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User Interface

This section describes the user interface of your printer, i.e. those parts and features that you use and/or refer to during the day-to-day use of the printer. The user interface comprises the Printer Monitor which is loaded in your PC when you install your printing system, the printer operator panel and the templates embossed on the printer casing.

Printer Monitor

The Printer Monitor is an on-screen aid containing a series of functions which help you during daily use of the printer. It is displayed by clicking on the specific icon.

The Printer Monitor allows you to:

- view the printer operating status during a print job. It indicates the proportion of the document printed and eventual error messages (**Status**),
- perform printer care functions, to maintain optimum working conditions (**Printer Care**):
  - Align : print head alignment (checking accuracy of bi-directional printing),
  - Clean : print head cleaning,
  - Demo : printing of the “demo” page,
  - Test : printing of the printer test page.

Checking print accuracy (Align)

Whenever you insert a new print head, you should check the accuracy of bi-directional printing, to guarantee optimum printing quality. The Printer Monitor in your printing system makes this operation extremely easy:

Make sure that your printer and PC are powered, your printing system is installed, both print heads are inserted and paper is loaded.

1. Click the Printer Monitor icon.
2. Click the **Printer Care** tab.
3. Click the **Align** button, then follow the instructions displayed.

Cleaning the print heads (Clean)

If you notice a deterioration in the print quality, before changing either/both print heads, run the “**Clean**” function.

1. Click the Printer Monitor icon (if necessary).
2. Click the **Printer Care** tab.
3. Click the **Clean** button, then follow the instructions displayed.

Printing the “demo” page (Demo)

The demo page (***see example on page XI***) gives you a full color/black monochrome print-out and allows you to check the correct functioning of the print heads.

1. Click the Printer Monitor icon (if necessary).
2. Click the **Printer Care** tab.
3. Click the **Demo** button, then follow the instructions displayed.

Running the print test (Test)

The print test (***see example on page XI***) gives you a print-out of the printer functional characteristics (firmware release, print head test, current settings).

1. Click the Printer Monitor icon (if necessary).
2. Click the **Printer Care** tab.
3. Click the **Test** button, then follow the instructions displayed.

The Printer Monitor has an extensive, user-friendly HELP feature which explains all its functions.

Printer Operator Panel

The behavior of the keys and light indicators on the operator panel will depend on the printer’s status and whether the front cover is closed or open.

Printer states:

- free: no data to be printed;
- busy: from the reception of data until the completion of its printing;
- standby: printer powered but dormant (more than two minutes have elapsed since last interchange with host); reduces power consumption.
- special function mode : user-invoked operating mode independent of host.

Basic key functions

Function	Key	Description
Printer ready/ Pause	**ON LINE**	Toggles the printer ON/OFF LINE condition. When the printer is ON LINE, the **ON LINE** light indicator is lit and the printer can process and print data received from your computer. When the printer is OFF LINE (pause), the print head carriage returns to its rest position at the physical right margin. The **ON LINE** light indicator is off and any printing operation is suspended.
Paper load/ eject	**PAPER**	With paper loaded in the ASF, but none already inserted for printing, loads a sheet of paper to the first print position. With paper already inserted for printing, expels it on to the spoilers above the output tray. Pressing again **PAPER** will open the spoilers so that the paper on them falls into the output tray and, simultaneously, another sheet will be inserted from the ASF for printing.

Function	Key	Description
Printer ON/OFF	**POWER**	Toggles the printer POWER ON/OFF condition. When the printer is powered,, the **POWER** light indicator is lit. Also has the printer RESET function.

Special key functions

❑ with printer cover CLOSED

Function	Key(s)	Description
"Demo" page	Press and hold **PAPER** and press **POWER** for at least 2 seconds.	The "demo" page is printed; after which the printer returns ON LINE.
Print test	Press and hold in this order: **ON LINE**, then **PAPER**, then **POWER**. Hold all three keys until both light indicators go off, then release them together:	Access to special functions mode.
first page only	press **ON LINE** three times.	The first page of the print test is printed. This page contains the printer release level, the nozzles test, the currently selected parameter values and character set.
complete	press **ON LINE**, **POWER**, **ON LINE**, in this order.	The complete print test is printed. The pages following the first contain the internal fonts available.
Clean print head	Press and hold **ON LINE** and press **PAPER** for at least 2 seconds.	The printer executes a head cleaning operation on both print heads.

Function	Key(s)	Description
Hex dump	Press and hold in this order: **ON LINE**, then **PAPER**, then **POWER**. Hold all three keys until both light indicators go off, then release them together; then press **ON LINE**, **PAPER**, **POWER**, in this order.	All subsequent data transmitted to the printer will be printed in its hexadecimal format. ***This feature should be used only under technical guidance, as it can generate extremely long print-outs; see Troubleshooting Guide.***
Exit from hex dump	**POWER**	Printer switched off.

Special key functions

❑ **with printer cover OPEN**

Function	Key(s)	Description
Print head carriage movement	**ON LINE**	Toggles the monochrome/ color print head change position.
Reset counter	Press and hold **PAPER** and press **POWER** for at least 2 seconds	Resets the ink counter. Re-activates the “end of ink” signal when you replace the print head or the ink cartridge. The POWER light indicator flashes three times.

Light indicator functions

Light Indicators		Meaning
ON LINE	**POWER**	
lit	lit	The printer is powered and either ON LINE, or in standby mode (dormant), i.e. within the last two minutes, there has been no printer- host activity nor operator action. To return the printer to its operating condition, just send a file to be printed or start any other operation.
off	lit	The printer is powered and OFF LINE.
flashing alternately		1. No print head installed. 2. “End of ink” condition on one of the print heads. When you open the printer cover, the print head carriage will move so that the print head which caused the error signal is in the loading position. If there is no operator intervention within 40 seconds of the error being signaled, the print head carriage will return to its rest position. To return the print head carriage to the loading position, press **ON LINE** or close and re-open the printer cover.

Light Indicators		Meaning
ON LINE	**POWER**	
off	single, three-flash sequence	Ink counter has been reset correctly following the replacement of a print head/ink cartridge and the pressing of **PAPER** and **POWER** for at least 2 seconds.
flashing slowly	off	1. If, after a print head replacement operation, the print head carriage remains in the loading position, the print head has not been inserted correctly. Make sure the print head is inserted in the correct position and blocked correctly. If it is not, repeat the insertion operation, pushing the head towards the rear of the printer to fix it in position and then press **ON LINE**. 2. “Paper out” condition on reception of data to be printed. If you open the printer cover, the print head carriage will be positioned under the “paper” template. Load paper in the ASF or insert a single sheet in the manual feeder and press **PAPER**.

Light Indicators		Meaning
ON LINE	**POWER**	
flashing intermittently	off	Paper jam or spoilers blocked. Switch off the printer, open the cover and remove the jammed paper. Close the cover and re-power the printer. If the light indicator continues flashing intermittently, disconnect the printer and call the technical support service or your dealer.
flashing rapidly		Failure condition. Disconnect the printer from the electrical power supply. Make sure the print head carriage and paper feed paths are not obstructed and then reconnect the printer to the electrical power supply and press **POWER**. If the light indicators continue flashing rapidly, disconnect the printer and call the technical support service or your dealer.
off		1. The printer is in special functions mode, awaiting a key sequence to activate a specific function. 2. The printer is not powered.

Embossed Templates

See figures on page XII.

Your printer has two embossed instruction templates: one on the printer casing under the cover, the other on the inside of the cover:

❑ **on the printer casing under the cover**

- how to move from one print head replacement position to the other;
- the print head carriage position if a “paper out” condition occurs.

❑ **on the inside of the cover**

- the operating procedure for changing the print heads.

For further details see “Ink Jet Print Heads” and the appropriate sections in the Troubleshooting Guide.

Ink Jet Print Heads

Your printer is a full-color printer. It must be equipped with both its monochrome and color print heads in order to operate correctly.

The ***print heads with replaceable ink cartridges*** supplied with the printer have an outer casing, with the nozzles and the electrical contacts, and an ink cartridge which fits inside the outer casing. This economical and ecological system allows you to change the cartridge several times before you have to change the entire print head. This type of print head generates an "end of ink" condition when the ink runs out, causing printing to stop, the light indicators to flash alternately and an error message to be displayed on your PC screen.

The printer also supports a ***Photo Cartridge***: an all-in-one print head and ink cartridge which you can use with the specific driver supplied to print photographic images.

ALWAYS use manufacturer-original Ink Jet Print Heads and Cartridges.

This section describes:

- how to replace the print heads and the ink cartridges,
- how to clean the print head,
- how to preserve optimum print quality.

Replacing the Print Head

See figures 1d and 2d on page V, for the monochrome print head and 1e and 2e on the same page for the color print head/Photo Cartridge, and the indications on the template on the inside of the cover.

You should remove the print head from the printer ***only*** to replace it or to repeat its insertion (see *Inserting the Print Head* in the Quick Start), in the case of faulty printing.

When replacing the print head, take care not to touch the print head carriage shaft nor the area under the print head carriage.
Any document inserted for printing will be expelled if you remove the color print head.

To remove the print head, proceed as follows:

1. Open the printer cover;

(a) *print head with replaceable ink cartridge only:*
if you are changing the print head due to an "end of ink" condition signaled by the printer (printing stopped, both **ON LINE** and **POWER** light indicators on the printer operator panel flashing alternately, and an error message on your PC screen), the print head carriage will move automatically to the head loading/ replacement position of the print head which caused the error signal.

(b) *all types of print heads:*
if you are changing the print head due to deteriorated print quality which has NOT been signaled by the printer (*you pressed* **ON LINE** *to interrupt printing BEFORE opening the cover*), the print head carriage will move to the monochrome print head loading/replacement

position. If you wish to change the color print head, you must press **ON LINE** to move the print carriage to the correct loading/ replacement position.
If you do nothing within the next 40 seconds, the print head carriage returns to its rest position. To return to the replacement position, press **ON LINE**.

2. Press down the green print head release lever (left for monochrome print head; right for color print head) to release the print head.

3. Remove the print head, pulling it upwards by the thumb and finger grip.

4. Insert a new print head in its place.

   The print head carriage will accept ONLY monochrome print heads in the left chamber, and color/Photo cartridge;positionPhoto Kit print heads in the right.
   If you insert a print head in the wrong chamber, the print head carriage will not return to its rest position and the light indicators will continue to flash.

   For the description of the print head insertion procedure, see *Inserting the Print Heads* in the Quick Start.

5. Only if you have inserted a NEW print head or replaceable ink cartridge, ***BEFORE CLOSING THE COVER***, press and hold **PAPER** and press **POWER** for at least two seconds to reset the ink counter.
   The **POWER** light indicator will flash three times to confirm that the counter is reset and a sheet of paper will be inserted automatically and a nozzles test printed.

If you are re-inserting a color/Photo Cartridge print head from the print head storage container, you MUST NOT reset the ink counter.

6. *If you pressed* **ON LINE** ***before*** *opening the cover, you must press it again* ***after*** *closing the cover, to return the printer to its operating status.*

If, after replacing a print head, the print head carriage remains in the loading position and the* ON LINE *light indicator is flashing slowly, the print head has not been inserted correctly or is in the wrong position.

Make sure the print head is inserted in the correct chamber (black, left; color, right) and fixed correctly, pushing it towards the rear of the printer to fix it in position and then press* ON LINE*.

If you have problems inserting a print head:

- Make sure you are loading the print head in the correct chamber on the print head carriage.
- Check that the print head chamber is clean and free of foreign bodies.
- NEVER force the print head into the chamber. Always remove it completely and repeat the entire insertion operation.

For other problems, see the specific items in the Troubleshooting Guide.

Replacing the Ink Cartridge

See the sequence of figures on page VI (1f to 4f) for the monochrome print head and on page VII (1g to 5g) for the color print head and also the indications on the template on the inside of the cover.

When replacing the ink cartridge, take care not to touch the print head carriage shaft nor the area under the print head carriage.
Any document inserted for printing will be expelled if you remove the color ink cartridge.

When the ink cartridge in either of the print heads runs out of ink, an "end of ink" condition is signaled: printing stops, both **ON LINE** and **POWER** light indicators on the printer operator panel start flashing alternately and an error message is displayed on your PC screen.

To substitute the empty ink cartridge:

1. Open the printer cover.
   The print head carriage will move automatically to the head loading/replacement position of the empty print head.
   If you do nothing within the next 40 seconds, the print head carriage returns to its rest position. To return to the loading/replacement position, press **ON LINE**.

2. Release ONLY the ink cartridge from the print head casing, pulling gently outwards the lateral lip on the print head casing; ***do* not *release or remove the print head casing from its chamber in the printer.***

3. Remove the cartridge from the print head casing, pulling it upwards.

4. Open the sealed ink cartridge container and remove the instructions leaflet (which should be kept for future reference).

5. Remove the ink cartridge from the container, holding it by the thumb and finger grip.

6. Remove the protective tape/capsule from the new ink cartridge.

   Do NOT touch the ink pad area on the cartridge.

7. Insert the new cartridge in the print head casing **immediately**, pressing in until it clicks into place.

8. ***BEFORE CLOSING THE COVER***, press and hold **PAPER** and press **POWER** for at least two seconds to reset the ink counter.
   The **POWER** light indicator will flash three times to confirm that the counter is reset and a sheet of paper will be inserted automatically and a nozzles test printed.

9. Close the printer cover.

If your printing operation was interrupted, it will now resume automatically from the point at which it stopped.

If you have not inserted the new ink cartridge correctly, the light indicators on the operator panel will continue to flash. You must repeat the entire replacement operation.

If the quality of printing is not optimum, try cleaning the print head (see Print Head Care in this section).

After replacing the ink cartridge several times, you must replace the entire print head (complete with outer casing).

Photo Cartridge

This all-in-one print head has been developed especially for printing photographic images. It contains water-resistant three-color and Photo Black ink.

You should inserted the Photo Cartridge in place of the **color** print head, which you must keep in the storage container provided.

See "Paper" and "Using Software" for information on the types of printing media to use and the installation of the specific Photo Kit driver.

Re-aligning the Print Heads

Whenever you change the print heads, you must check their alignment.

This operation can be done either using the Printer Monitor in Windows® environment or the printer setup utility program under DOS.

See the specific sections in "Quick Start" and "Using Software".

Print Head Care

Always keep the print heads and ink cartridges sealed until they are to be used.

Separate the ink cartridge from the print head ONLY to replace it. Do NOT remove and then reinsert it. The ink cartridge replacement operation should done ONLY when a new cartridge is available for IMMEDIATE substitution; the print head MUST NOT be left without an ink cartridge inserted.

Remember to remove the protective tape/capsule (point 2 in figure 2 on page VIII) before inserting the print head/ink cartridge in the printer. Take care not to get ink on your clothes; the ink in the cartridge stains.

Do NOT remove the cap (point 1 in figure 2 on page VIII) from or attempt to refill a cartridge with ink, as this damages the print head and the printer.

DO NOT shake the print head; it is not a fountain pen. If it does not print, do the cleaning operations described in the next section.

If you think that the number of pages printed with the current print head/cartridge is fewer than usual, try cleaning the print head. If the "end of ink" condition persists, the print head/ink cartridge is empty and requires replacing.

Always press* POWER *before disconnecting your printer from the power supply or before switching off your computer. This will guarantee that the print head carriage returns to its rest position.

When the printer is powered, the print head carriage will automatically return to its rest position after 40 seconds of inactivity.

Cleaning the Print Head

The print heads are cleaned automatically at regular intervals while the printer is powered. This operation clears the print head nozzles, guaranteeing the ink flow. If you have a problem with the printing quality that is not solved by this automatic nozzle clearing operation, you can do the same operation, using:

- a key combination:
  WITH THE PRINTER COVER CLOSED, press and hold **ON LINE**, press **PAPER** for at least two seconds and then release both keys together.

- the "CLEAN" function in the print care tab in the Printer Monitor (see the specific section in *User Interface*).

If you have a problem with the printing quality that is not solved by the nozzle clearing operation described above, try cleaning the print head, as follows:

1. Open the cover, release and remove the print head.
2. Clean the electrical contacts (gold part) on the print head and in the housing on the print head carriage with a slightly damp lint-free cloth, taking care not to touch the print head nozzles.
3. Re-insert the print head in the printer and close the cover.

If there is still no improvement in the print quality, try cleaning the print head nozzles.

This operation MUST NOT be repeated systematically, as it can damage the print head. It should ONLY be attempted as a last resort, before changing the ENTIRE print head.

1. Open the cover, release and remove the print head.
2. Dampen a tissue handkerchief with distilled water; squeeze it slightly to remove any excess water.
3. Holding the print head with its nozzles facing ***downwards***, blot it against the handkerchief, pressing lightly.
4. Repeat the blotting operation a few times on different areas of the handkerchief, to clean the nozzles.
5. Reinsert the print head in the printer and print the "demo" page to check the quality of printing (see the specific section in the *Quick Start*).

For other problems, see the specific items in the Troubleshooting Guide.

Paper

This section contains information on the various types of documents you can use in your printer.

Types

❑ **Plain paper**

Best results are obtained using good quality plain office paper with a weight between 15 and 30 lbs. Using 21 lbs paper, you can load a pack of up to 120 single sheets in the ASF.

❑ **Special printing media (high resolution coated/glossy paper, transparencies, T-Shirt transfers)**

When you require top professional printing quality, e.g. for presentation documents in color and for all types of illustrations (photograph reproductions, drawings and graphics), you should always use media specifically indicated for ink jet printers.

Best results are obtained with 24 to 28 lbs documents. You should use recommended media types (see "*Supplies*") and ask your dealer if you require further information. Using 24 lbs documents, you can load up to 40 pieces (max. total thickness: 6 mm) at a time in the ASF .

When inserting the sheets for printing, make sure that the printing surface is face the correct way (see the instructions on the paper packaging or container).

The drying time for the ink on the special printing media is somewhat longer than for plain paper. Always remove the printed page as soon as it exits from the printer and set it aside to dry thorougly before handling it. Do NOT stack such pages.

❑ **Envelopes**

Best results are obtained using quality bond envelopes with a weight between 19 to 25 lbs. Using 21 lbs envelopes, you can load up to 25 at a time in the ASF.

❑ **Note cards**

Best results are obtained using note cards with a weight between 25 to 35 lbs. Using 25 to 28 lbs note cards, you can load up to 10 at a time.

Dimensions

The following table indicates the document formats you can use in your printer:

Single Sheets (width x length)		Envelopes (width x length)	
A4	210 x 297 mm 8.26 x 11.7 in	COM-10	4.125 x 9.5 in 104.7 x 241.3 mm
A5 (vertical)	148.5 x 210 mm 5.85 x 8.26 in	DL	110 x 220 mm 4.33 x 8.66 mm
Letter	8.5 x 11 in 215.9 x 279.4 mm	C5	162 x 228 mm 6.37 x 9 in
Legal	8.5 x 14 in 215.9 x 355.6 mm	C6	114 x 162 mm 4.4 x 6.27 in
Executive	7.25 x 10.5 in 184.2 x 266.7 mm	B6	125 x 176 mm 4.92 x 6.92 in
Note cards (width x length)			
#1	4 x 6 in	A6	105 x 148.5 mm
#2	5 x 8 in		
T-Shirt transfers			

Document Insertion

You can insert all document formats both in packs through the ASF or manually, one at a time, through the manual feeder. A single document in the manual feeder will have insertion priority over the document(s) in the ASF.

The documents, including small formats such as A5, note cards and envelopes, should always be inserted with their shorter side as the leading edge.

For document insertion in the ASF, ***see figures 1h to 6h on page IX and the description in the Quick Start.***

Envelopes, glossy, coated, transparencies and T-Shirt transfers should be inserted with their printing side face up and envelopes must have the sealing flap underneath. When using envelopes, remember to select a landscape font for printing. When using as type of special printing media, always select the appropriate printing feature (Photo, Art, etc.) When using T-Shirt transfers, remember to select the reverse printing feature (“Mirror”).

❑ in the ASF

- The paper pack must not exceed 12 mm (0.45 in) for standard plain paper and envelopes, (approximately 120 single sheets or 25 envelopes) and 6 mm (0.23 in) for all other types of printing media.
- If you use a narrow document format (less 165 mm (6.5 in) wide) or any type of envelope, you must use the intermediate right hand margin guide , opening it outwards (***see figures 1j and 2j on page X***) before inserting the document to be printed.

- If you load a pack of envelopes or narrow documents, you **cannot** then insert a wider format using the manual feeder.

❑ **in the manual feeder**

A single document in the manual feeder will have insertion priority over the document(s) in the ASF.

- All documents are loaded one at a time.
- If you use a narrow document format (less 165 mm (6.5 in) wide) or any type of envelope , you must use the intermediate right hand margin guide, opening it outwards (***see figures 1i and 2i on page X***) before inserting the document to be printed.
- You **cannot** insert a wider format if you have already loaded a pack of envelopes or narrow documents in the ASF.
- If the ASF is empty, you may have problems inserting a document through the manual feeder.

Sub-standard paper can affect the quality of printing.

Printing on both sides of the paper may increase the risk of misfeeds or paper jams.

The document/envelope must not be crumpled or torn, otherwise it may jam or even not be inserted.

Print Area

The following tables contain the measurements of the physical print area on the document and envelope sizes handled by the printer. The printer can print a maximum of 67 lines on an A4 page with 6 lpi linespacing (the last line may be printed with slightly defective linespacing).

Please note that:

- The physical print area is the maximum print area available on your document.
- The recommended print area is generally always smaller than the physical print area. Your application may also add its own default margins to your page layout, further reducing the print area.
- Pre-printed documents MUST have at least a 5 mm (0.2 in) margin before the first print position.
- You should avoid printing high quality/resolution graphics within the last 33 mm (1.25 in) of the page.
- Use of documents that do not conform to the specifications indicated may result in crooked or incorrect insertion and feed-through, with a risk of jamming.

Single sheets

Format/ Measure-ment	A4	A5 (vertical)	Letter	Legal	US EXEC
Page length	297 mm 11.7 in	210 mm 8.26 in	279.4 mm 11 in	355.6 mm 14 in	266.7 mm 10.5 in
Page width	210 mm 8.26 in	148.5 mm 5.85 in	215.9 mm 8.5 in	215.9 mm 8.5 in	184.2 mm 7.25 in
Max. print line length	203.2 mm 8 in	141.7 mm 5.58 in	203.2 mm 8 in	203.2 mm 8 in	177.8 mm 7 in
Min. left margin	3.4 mm 0.134 in	3.4 mm 0.134 in	6.4 mm 0.25 in	6.4 mm 0.25 in	3.1 mm 0.125 in
Min. right margin	3.4 mm 0.134 in	3.4 mm 0.134 in	6.4 mm 0.25 in	6.4 mm 0.25 in	3.1 mm 0.125 in
Min. top margin	1 mm / 0.04 in				
Min. bot. margin	12.7 mm / 0.5 in				

Envelopes

Format/ Measurement	COM-10	DL	C5	C6	B6
Document length	241.3 mm 9.5 in	220 mm 8.66 in	228 mm 9 in	162 mm 6.37 in	176 mm 6.92 in
Document width	104.7 mm 4.12 in	110 mm 4.33 in	162 mm 6.37 in	114 mm 4.4 in	125 mm 4.92 in
Max. print line length	98 mm 3.85 in	103 mm 4.06 in	155 mm 6.11 in	107 mm 4.22 in	118 mm 4.65 in
Min. left margin	3.4 mm / 0.134 in				
Min. right mar.	3.4 mm / 0.134 in				
Min. top margin	1 mm / 0.04 in				
Min. bot. mar.	33 mm / 1.29 in				

Note cards

Format/ Measurement	#1 (4 x 6 in)	#2 (5 x 8 in)	A6
Document length	152.6 mm 6 in	203.2 mm 8 in	148.5 mm 5.85 in
Document width	101.6 mm 4 in	127 mm 5 in	105 mm 4.13 in
Max. print line length	94.8 mm 3.73 in	120.2 mm 4.73 in	98.2 mm 3.87 in
Minimum left margin	3.4 mm / 0.134 in		
Minimin right margin	3.4 mm / 0.134 in		
Minimum top margin	1 mm / 0.04 in		
Min. bottom margin	33 mm / 1.29 in		

Using Software

Your printer is optimized for operation under Windows®.

This section gives an overview of your printer driver and the printer setup utility program contained on the diskettes supplied with your printer. For information regarding the Printer Monitor, see *Quick Start* and *User Interface*.

How to Use Your Printer Driver

Once you have installed your printing system in your PC (as explained in *Quick Start*), you can access the printer driver to optimize your print job.

Your driver automatically applies the best overall choice of settings for your document. If you wish to modify these settings, your driver offers a variety of combinations.

Access

Access to the printing parameters in the driver varies slightly, depending on your application environment:

❑ **In Windows® 3.1/3.11:**

1. Using your mouse, access **Control Panel**, though **Program Manager** and **Main**,
2. In **Control Panel**, open the **Printers** dialogue box, in the same way,
3. Check that your printer is selected (if not, select it),
4. Click **Setup**:

❑ **In Windows® 95:**

1. Using your mouse, click **Start** in **Desktop**,
2. Highlight **Settings**, then click **Printers**,
3. Highlight your printer model, then click the right button of your mouse,
4. Click **Properties**.

The driver selection is organized in property sheets. To select the parameters you require for your print job, open property sheets *Settings*, *Quality* or *Color*, as necessary.

Help

Each active screen has an extensive module of detailed information which can be accessed by clicking on the **Help** button at the foot of the window.

If you rest your mouse arrow on most features and scrolling windows for more than two seconds, an information flash will indicate the specific function of that feature or window. E.g.: if, in **Settings** property sheet, the mouse arrow rests on the feature “Photos” in the Document Type section, the help tip “**Select for printing photographic images**” is displayed; if it rests on the scrolling window in the Paper Size section, “**Selects the paper size to use**” is displayed.

Modify

To change the value of any feature, just click the item or value. To move from one screen to another, just click the appropriate tab at the top of the window; the property sheet selected is activated and displayed automatically.

Save

When you have made all the changes you require, click **OK** at the bottom of the window to save your new configuration and exit.

Hints

❑ **Document type**

If **Automatic** is selected, many of the other items in the various screens are disabled. The values for these features are set automatically, according to your document contents.

❑ **Monochrome printing only**

If you wish to print only with the monochrome print head, you must select a document type other than Automatic, then go into the Color tab and select Grayscale.

❑ **Fonts**

Scaleable and/or TrueType fonts are available when you operate in a Microsoft® Windows® environment.

You cannot use the printer's resident fonts in Windows® environment.

Photo Kit

How to install the driver:

If you are a Windows® 3.1/3.11 user:

1. Start Microsoft Windows®.
   (If it is already running, make sure that all Windows® application tasks are closed before starting the driver installation procedure).
2. In **Main** group, select **Printers**.
3. Highlight your printer icon and click on **Remove**.
4. Insert the driver diskette/CD in the appropriate drive of your PC.
5. Activate **Control Panel** in **Main** and select **Printers**.
6. Click on **Add>>**, then follow the instructions which appear on your PC screen until the driver is installed.

If you are a Windows® 95 user:

1. Make sure that your printer is connected and powered.
2. From "**Start**", select "**Settings**" and then "**Printers**".
3. Click on your printer folder group and select "**Delete**" in the "**File**" menu.
4. Double click the "**Add printer**" icon
5. Click on "**Next>**" until a list of manufacturers and printer models is displayed.

6. Click on "**Have Disk...**". Insert the driver diskette/CD in the appropriate drive of your PC. then follow the instructions which appear on your PC screen.

7. At the end of the installation, you will be asked to remove the diskette and restart Windows®.

The printing clarity and definition of photographs and high resolution or fine pattern images require special paper; the NEC-recommended Photo and Coated papers guarantee optimum results.
For the use of these types of papers, refer to the instructions contained in the paper packaging and the section entitled Paper in the User's Manual.

The Photo Kit driver helps you to select the printing parameters that give the best possible quality.
The driver's ON LINE Help contains many suggestions and indications and a section of Problems and Solutions.

Running the Printer Set-Up Utility

This program runs under DOS. It should be used if the feature you require cannot be selected through the driver you have installed and you wish to modify your resident printer parameters or if you wish to control the print head alignment.

Use a good quality interface cable for your computer-printer connection, to ensure correct communication (ask your retailer for details).

❑ **Note for Windows® 95 users**

If you have Windows® 95 installed on your PC, **BEFORE** running the setup utility, you must disable the DOS spooler, as follows:

1. Open the **Printers** folder, select your printer then the **Properties** tab.

2. In the **Details** property sheet, click **Port Settings**.

3. A window entitled **Configure LPT ports** opens, with the option **Spool MS-DOS print jobs** selected.

4. Click the box, to disactivate the option. This will enable the DOS application to handle the port directly.

5. Click **OK**.

6. Click **OK** in the **Details** property sheet.

To re-enable the "Spool MS-DOS print jobs" feature, just repeat the above procedure.

To run the setup utility, proceed as follows:

1. Insert the diskette containing the setup utility program in drive ***a*** (usually) of your computer.

2. At the DOS prompt, type **A:** (or B:\)**STUP750.EXE**, and press ENTER.

3. The program will read the setup parameters currently stored in the printer. It will then display a screen offering the choice:
   - Print head alignment, or
   - Printer setup modifications.

4. If you click **Print head alignment**, the program will display a series of screens which guide you step by step through the alignment procedure.

5. If you click **Printer setup modifications**, the program will display the setup parameters currently stored in the printer.

6. If you click **Change Parameters**, the parameter group selection screen is displayed.

   You can now select, one at a time, the parameter groups containing the feature(s) you wish to change.
   See also Appendix B for a complete list and description of the parameters available.

7. If you click **Factory Default**, you restore the default settings.

8. If you click **Quit**, you abandon the setup utility program and return to DOS. If you changed any settings, you will be prompted to confirm that you want to "Save setup into printer?".

The parameter settings defined in the driver and common to the program always have priority over the settings made using the setup utility.

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Troubleshooting

This section contains a troubleshooting guide which indicates some of the problems which may occur during the day-to-day use of your printer, together with suggestions for their solution.

Your printer is designed to require only minimum maintenance. However, everyday use will give rise to a number of simple printer-care operations.

If you detect serious mechanical damage to or a failure in the printer, do not attempt to repair it yourself! CALL THE TECHNICAL SUPPORT SERVICE at 1-800-632-4650.

General Care

1. **Environment**

- Keep your printer in a stabilized, ventilated environment (temperature range: 60 - 95 ^{o}F / 15 to 35 ^{o}C; relative humidity: 20% - 80% without condensation).
- Do not subject your printer to brusque changes in temperature and/or humidity.
- Do not let dust accumulate on the printer casing. Use a slightly damp cloth to remove dust.

  Do NOT use abrasive or corrosive cleaning fluids to clean the printer casing.

2. **Transportation**

- Always make sure that the print head carriage is in its rest position.
  To ensure this, always switch off your printer (pressing **POWER**) BEFORE switching off the host to which it is connected.
- Take care not to drop your printer.
- Repack your printer in its original carton, whenever possible.

Problems and Solutions

If you have problems while working with the printer, check through the following list, to see if you can find the cause of the problem.

If a printer malfunction other than those indicated in the following sections occurs, or if, after executing the suggested corrective action, the problem persists, call your retailer or the Technical Support Service.

During normal printer operation, an error condition will be signaled by the flashing of the **ON LINE** and/or **POWER** light indicators.

Installation

1. **Missing or damaged parts.**

- Contact your retailer immediately.

2. **Printer is not powered.**

No power supply (no light indicators are lit).

- Check that the printer is connected properly to the power socket.
- Press **POWER**.

3. **No printer reaction.**

When the printer is powered, the print head carriage and the output tray spoilers do not move.

- Check that the carriage path and spoilers are free of impediment.
- Try switching the printer off and then on again.
- If the **ON LINE** and **POWER** light indicators are flashing rapidly, there is a failure on the mother board; press **POWER** to switch the printer off, disconnect it and call the technical support service.

4. **Demo page did not run.**

- If the print head carriage does not move, check that its path is not obstructed.
- Press **POWER**, to switch the printer off, wait a few seconds and then press **POWER** again. Repeat the key sequence or click the appropriate button in the Printer Care tab in the Printer Monitor.
- If the **ON LINE** and **POWER** light indicators flash alternately:
  - the print head/ink cartridge needs replacing. Follow the instructions given in *Ink Jet Print Heads*, to replace the print head/ink cartridge.
  - check that the ink cartridge is inserted correctly; if it is not, remove and reinsert it.
- If the **ON LINE** light indicator flashes slowly:
  - open the cover to check the position of the print head carriage, which may have moved to indicate a paper out condition. If this is the case, load paper in the ASF and press **PAPER** on the operator panel,
  - both print heads are inserted, but the print head carriage does not return to its rest position. The print head(s) is/are not inserted/fixed correctly;

check that the print head(s) are fixed in their blocked position (towards the rear of the printer).

5. **Problems with connection to host.**

- Check that your interface cable is of the correct type.
- Make sure you have fixed the interface connectors properly both to the printer and to the host.
- If you have an “ECP” computer, check that its printer port setting is **Printer Port: LPTx**. If necessary, change this setting in your system properties:
  - right click on the **My Computer** icon,
  - select **Properties**, then **Device Manager**,
  - double click on **Ports (COM&LPT)**,
  - select **Printer Port: LPTx**.

  If problems continue after confirming the above printer port setting, set the LPT mode in the computer BIOS to either [Standard] or [Bi-directional].
  For further details on the BIOS settings, refer to your computer manual or contact your computer dealer.
- Check that you have configured your application correctly (see the driver installation procedure in *Quick Start* and your application manual).

Paper

❑ Precautions

- The paper must not be crumpled or torn, otherwise it may jam or even not be inserted. Always use paper in perfect condition and within the specifications defined (see *Paper* and *Product Characteristics*).
- Make sure the paper feeds smoothly, and that it is not held too tightly nor has too much play.
- If you remove the paper from or add paper to the ASF, you MUST repeat the entire paper loading operation.
- Always make sure there is no paper inserted for printing before disconnecting the printer from the electrical power supply.
- Printing on both sides of the paper may cause smudging.

1. **No paper.**

   If, on a print command, there is no paper loaded in the printer, the **ON LINE** light indicator flashes slowly.

   To clear this condition, load paper in the ASF and press **PAPER**.

2. **Paper does not load.**

- Check that the size and weight of the paper used are within the limits allowed. Press **PAPER**, then repeat the paper loading operation.

- If you removed the paper from the ASF, you must press **PAPER**, repeat the entire paper loading operation and then press **PAPER** again.
- Make sure the paper is not feeding in crookedly.
- If the **ON LINE** light indicator flashes slowly, open the cover to check the position of the print head carriage, which may have moved to indicate a paper out condition.
- Make sure the correct paper feed parameter is selected in your printer driver, load paper in the ASF and press **PAPER** .

3. **Single sheets/envelopes not loaded (or loaded incorrectly).**

- The document/envelope has not been positioned correctly for insertion.
- Make sure the correct paper format parameter is selected in your printer driver.
- Preprinted documents must have a clean 5 mm margin before the first print position.

4. **Paper jams or tears.**

The intermittent flashing of the **ON LINE** light indicator signals that a paper jam has occurred.

The most common causes of paper jamming in the ASF are:

- ***the addition of paper when the ASF is not empty,***
  - ***when adding paper to the ASF, ALWAYS remove any paper already present and reload it all as a single pack.***
  - ***after clearing a paper jam from the ASF or printing area, ALWAYS remove any paper still in the ASF, check it for and remove any damaged pages, press* PAPER *and then reload the paper.***
- ***the incorrect loading of paper,***
- ***trying to load a single document through the manual feeder when the ASF is empty or when it contains a narrower document format than that in the manual feeder.***
- If the paper has already exited from the print area:
  - remove the jammed paper, pulling it carefully forward towards the output tray.
  - to resume printing, check the paper in the ASF (if necessary remove any imperfect/damaged sheets, fan and square it and then reload it in the ASF), and then press **ON LINE**.
- If the paper jams in the ASF:
  - press **POWER** (printer off) and disconnect the printer from the electrical power supply
  - remove the damaged page(s) from the ASF. Remove the rest of the paper, check it for imperfect/damaged sheets, fan and square it and then reload it in the ASF.
  - Reconnect and power the printer.

5. **Incorrect stacking.**

- Too many sheets of paper in the output tray.

  The output tray capacity depends on the type of paper and print coverage on the page. It will hold approximately 60 standard weight printed pages.

Heavily printed pages tend to curl and may not stack correctly. They may also stain the rear of the page stacked over them, as they require longer to dry. Always remove such pages from the output tray as soon as they are expelled from the printer.

Print heads

When changing the print head(s), take care not to touch the print head carriage shaft nor the area under the print head carriage.

1. **Printer does not print**

- Check that you have removed the protective film from the print head.

2. **Print head carriage does not return to the rest position after a replacement operation.**

- Check that you have inserted the print head properly, ***in the correct position*** (black, left; color/Photo, right).
- Check that nothing is blocking the carriage path.
- Check that the print head(s) is/are fixed correctly.
- If you have inserted a **NEW** print head or if you have replaced the ink cartridge, remember to reset the ink counter (press and hold **PAPER** and then press **POWER** for at least 2 seconds).

3. **Characters are faint.**

- Run a demo page to check that there is ink in the print head.
  If printing is still faint, clear the print head, holding **ON LINE** and pressing **PAPER** for at least 2 seconds. Repeat the demo page; if there is no improvement, replace/change the ink cartridge/ print head.

4. **Missing dots**

If dots or lines are not printed completely, remove the ink jet print head and reinsert it, or:

- Clean the print head, holding **ON LINE** and pressing **PAPER** for at least 2 seconds.
- Clean the electrical contacts on the print head and those in the print head carriage.

For all these operations, see the appropriate paragraphs in *Ink Jet Print Heads*.

After clearing and/or cleaning the print head contacts, print a “demo” page to check the print quality. If the print quality is still not acceptable, run a print test, as follows:

- ***Make sure that the print heads are inserted and that there is paper in the ASF.***
- Press and hold in this order: **ON LINE**, then **PAPER**, then **POWER**. Hold them until the light indicators go off, then release them together. Press **ON LINE**, **POWER**, **ON LINE**, in this order; or click the appropriate button in the Printer Care folder in the Printer Monitor.
- A sheet of paper will be fed into the printer and the print test will be executed automatically.

To suspend the print test temporarily, press **ON LINE** (pressing this key a second time will cause printing to resume). Once the test is completed and the last sheet of paper expelled, the printer will go automatically into ON-LINE condition. Check the print quality of the test, making sure that all the characters are clearly defined and complete.

If you have any problems with the print test, check that you have followed the operating procedures correctly.

Print test contents

The print test (***see figure on page XI***) contains information on the printer firmware (release, emulation and character generators) and the correct operation of the print head nozzles:

- The first line of the print test contains technical information on the printer contents.
- This is followed by information on the condition of the two print heads (first the monochrome head, then the color print head). This information consists of:
  - the Print Head Type (Black/Color),
  - the Print Head Test (consisting of a diagonal line, indicating the performance of the head nozzles),
  - the result line (Nozzle test Pass, or Fail with the number(s) of the faulty nozzle(s)).
- If dots are missing, see the appropriate paragraphs in this section for the possible solutions to this problem. Then repeat the print test.
- The rest of the print test contains the currently selected values for the programmable parameters (SETUP), a print-out of the currently selected character set and the internal fonts available.

If you wish to modify your printer set-up under DOS, see *Running the Printer Set-Up Utility* in *Using Software*.

Printing

During a printing operation, do not stop the print head carriage manually nor touch the area within its path.

1. **Printer does not print/receive data.**

- Check that the printer is connected to the electrical power supply, powered on and On Line (the **ON LINE** and **POWER** light indicators on the operator panel should be lit).
- Check the physical (cables) and logical (application and driver) connections between the printer and host.
- If you have an "ECP" computer, make sure that its printer port setting is **Printer Port: LPTx**.
  If necessary, change the setting in your system properties (see point 5 in the section entitled *Installation*).
- Check that host system is switched on.
- If the print head carriage does not move and the **ON LINE** and **POWER** light indicators flash rapidly, press **POWER** to switch off the printer and then disconnect it from the electrical power supply. Wait a a few seconds, then reconnect and power the printer again. If the **ON LINE** and **POWER** light indicators continue to flash rapidly, switch off and disconnect the printer and call the Technical Support Service.
- Check whether the printer is in the special functions mode (printer powered but both light indicators off).
- Check that you have removed the protective film from the print head.
- If the **ON LINE** light indicator flashes slowly, check that paper is present and that it loads correctly, and that the print heads are fixedly in place correctly.

2. **Printing stops.**

- If the **ON LINE** light indicator flashes intermittently, check that the paper has not jammed.
  If this is the case, see point 4 (Paper jams or tears) in the section entitled *Paper*.
- If the **ON LINE** light indicator flashes slowly, check that paper is present and that it loads correctly.
  If there is no paper in the printer, load up to 120 standard weight sheets of plain paper in the ASF and press the **PAPER** key on the operator panel.
  See *Paper* for the correct paper loading procedure.
- If the **ON LINE** and **POWER** light indicators flash alternately, replace the ink cartridge or change the print head.
- Printing stops in the middle of the print job and the page is ejected; check the printer port, which should be **Printer Port: LPTx** (see point 5 in the section entitled *Installation*).

3. **Printing does not resume after changing the print head(s).**

- the print head(s) is/are not inserted/fixed correctly. Make sure the print head is inserted in the correct chamber (black, left; color/Photo, right) and fixed towards the rear of the printer.

- the ink counter has not been reset.
  Press and hold **PAPER** and press **POWER** for at least 2 seconds. The **POWER** light indicator will flash three times.

See "Ink Jet Print Heads" for the correct ink cartridge/ print head replacement procedure.

4. **Poor print quality.**

(a) Legibility

- Clean the print head, holding **ON LINE** and pressing **PAPER** for at least 2 seconds, or clicking on the appropriate button in the Printer Care tab in the Printer Monitor.
- Clean the electrical contacts on the print head and those in the print head carriage.
- Try printing on the other side of the paper.
- Make sure you are using good quality paper.

(b) Character alignment

- In Windows® environment, access the Printer Care tab in the Printer Monitor and run the "ALIGN" function, to correct eventual horizontal/vertical misalignment of the characters (see *Checking print accuracy* in the *Quick Start*).
- Under DOS, access the print head alignment function in the printer setup utility program (see *Using Software*).

5. **Strange characters are printed.**

- Check that the default driver you have selected is the correct one.
- Check the interface cable quality and length (max. recommended length: 2 meters).
- When using **Standard** print quality (or Automatic mode with **Speed optimization**) with some applications (CorelDraw, Designer, etc.), you may obtain strange printouts (extra-large characters, altered character spacings, incorrectly proportioned graphics). This is due to difficulties in handling non-square resolutions (600 x 300 dpi). If this occurs, you should select another print quality (or change to **Quality optimization** in Automatic mode).

If you cannot solve this problem, your hot line service may request you to run a hex dump of a test piece to check that the data transmission is operative. To run the hex dump, proceed as follows:

- Press and hold in this order: **ON LINE**, then **PAPER**, then **POWER**. Hold them until the light indicators go off, then release them together. Press **ON LINE**, **PAPER**, **POWER**, in this order.

(a) Send a ***short*** text file from your computer. This file is printed as a string of hexadecimal codes corresponding to the individual characters transmitted.

(b) To exit, press **POWER** (printer switched off).

6. **Print test executed correctly, but unable to print in Windows® environment.**

The printer driver may not be installed correctly.

- Windows® 3.1/3.11
  Check that the name of the printer appears in the **List of printers** in the **Printers** dialogue box:

  – If the printer name is not listed, install the printer following the driver installation procedure described in the Quick Start.

  – If the printer name is listed, remove it from the list by clicking on the **Remove** button in the **Printers** dialogue box and then repeat the driver installation procedure.

- Windows® 95
  Check that the printer icon appears in the **Printers** dialogue box:

  – If the printer icon is not present, install the printer following the driver installation procedure described in the Quick Start.

  – If the printer icon is present, remove it by highlight the icon, right clicking your mouse buton, and then clicking on **Delete** in the menu which opens; repeat the driver installation procedure.

7. **Color printing and your PC monitor.**

- You are continually getting an “out of memory” message which is preventing you from printing. Your color monitor is set to “high resolution” and is processing all the data.

  Change/reduce the setting. You will not lose in printing quality and you will be able to print without this error message appearing.

- Color on your PC monitor differs from color on printer.

  As your PC monitor and printer use different methods to create color (PC monitor: red, green, blue; printer: cyan, magenta, yellow), the colors produced in your printed document may differ.
  Beyond adjusting the printer driver, you will get the best color matches if you use a 24-bit color monitor.

- Color printing speed.

  The speed at which your color document is printed depends on:

  – the processing speed of your PC,

  – the amount of RAM available in your PC,

  – the type of document you are printing.

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Appendices

A: Supplies

B: Command Code Summary

C: Programmable Printer Features

D: Product Characteristics

E: Getting Service and Support

F: Glossary

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Supplies

The following items can be ordered from your retailer. They are packed individually and have specific instructions leaflets.

Item	Order No.
• Midnight Black Printhead	30-070
• Midnight Black Ink Cartridge	30-071 *
• TrueColor Printhead	30-076
• TrueColor Ink Cartridge	30-077 *
• Photo Cartridge	30-079

* Snap-in Replaceable Ink Cartridge

The SuperScript 750C is compatible with most ink jet papers (coated and uncoated). For optimum print quality, we recommend the following paper types:

Item	Order No.
• NEC Fine White Paper Perfect for every day use	70-100
• NEC Premium Paper Presentation quality results	70-110
• NEC T-shirt Transfer	70-290
• NECUltra Inkjet Paper Coated Glossy Finish Economical photo quality output	70-115
• NEC Premium Inkjet Transparency Project clear, crisp color presentation	70-120
• NEC Photo Paper Designed especially for use with photo cartridge	70-240

Ordering Information

For the NEC authorized supplies reseller nearest you or to order directly from NEC, call **1-800-632-2326**

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Command Code Summary

Basic Operations

BS	8	08	Backspace
HT	9	09	Horizontal Tabulation
LF	10	0A	Line Feed
FF	12	0C	Form Feed
CR	13	0D	Carriage Return
SO	14	0E	Activates Secondary Font
SI	15	0F	Activates Primary Font
SP	32	20	Space

Fonts and Character Sets

ESC (*n* @	27 40 *n* 64	1B 28 *n* 40	Primary Font Definition
ESC (0 @	27 40 48 64	1B 28 30 40	Designates default primary character set as primary font
ESC (1 @	27 40 49 64	1B 28 31 40	Same as for ESC (0 @
ESC (2 @	27 40 50 64	1B 28 32 40	Designates current primary character set as primary font
ESC (3 @	27 40 51 64	1B 28 33 40	Selects the default primary font
ESC) *n* @	27 41 *n* 64	1B 29 *n* 40	Secondary Font Definition
ESC) 0 @	27 41 48 64	1B 29 30 40	Designates the default character set as the secondary font
ESC) 1 @	27 41 49 64	1B 29 31 40	Designates the default primary font as the secondary font
ESC) 2 @	27 41 50 64	1B 29 32 40	Designates the current primary font as the secondary font
ESC) 3 @	27 41 51 64	1B 29 33 40	Selects the default secondary font
ESC & l 0 O	27 38 108 48 79	1B 26 6C 30 4F	PORTRAIT Print Orientation
ESC & l 1 O	27 38 108 49 79	1B 26 6C 31 4F	LANDSCAPE Print Orientation

(continued)

FONTS AND CHARACTER SETS (continued)			
ESC (*n m* .	27 40 *n m*	1B 28 *n m*	Primary Character Set Definition
ESC) *n m* .	27 41 *n m*	1B 29 *n m*	Secondary Character Set Definition (values of *n* and *m* as for ESC (*n m* ... ..)
ESC (*n m*	27 40 *n m*	1B 28 *n m*	Primary Character Set Definition
ESC (10 U	27 40 49 48 85	1B 28 31 30 55	CP 437 International (default)
ESC (8 U	27 40 56 85	1B 28 38 55	Roman8
ESC (11 U	27 40 49 49 85	1B 28 31 31 55	PC 8 Denmark/Norway
ESC (12 U	27 40 49 50 85	1B 28 31 32 55	CP 850 (Multilingual)
ESC (0 N	27 40 48 78	1B 28 30 4E	ECMA-94 Latin 1
ESC (1 E	27 40 49 69	1B 28 31 45	ISO 4 - United Kingdom
ESC (1 G	27 40 49 71	1B 28 31 47	ISO 21- Germany
ESC (1 F	27 40 49 70	1B 28 31 46	ISO 69 - France
ESC (0 I	27 40 48 73	1B 28 30 49	ISO 15 - Italy
ESC (0 D	27 40 48 68	1B 28 30 44	ISO 60 - Norway 1
ESC (1 D	27 40 49 68	1B 28 31 44	ISO 61 - Norway 2
ESC (0 S	27 40 48 83	1B 28 30 53	ISO 11 - Sweden Names
ESC (3 S	27 40 51 83	1B 28 33 53	ISO 10 - Sweden
ESC (2 S	27 40 50 83	1B 28 32 53	ISO 17 - Spain
ESC (0 U	27 40 48 85	1B 28 30 55	ISO 6 - ASCII
ESC (2 U	27 40 50 85	1B 28 32 55	ISO 2 - IRV
ESC (4 S	27 40 52 83	1B 28 34 53	ISO 16 - Portugal
ESC (0 K	27 40 48 75	1B 28 30 4B	ISO 14 - JIS ASCII
ESC (1 U	27 40 49 85	1B 28 31 55	Legal
ESC (33 I	27 40 51 51 73	1B 28 33 33 49	CP 860 Portugal
ESC (13 U	27 40 49 51 85	1B 28 31 33 55	UNIX International
ESC (34 I	27 40 51 52 73	1B 28 33 34 49	CP 863 French Canadian
ESC (59 P	27 40 53 57 80	1B 28 35 39 50	PC Abicomp International
ESC (60 P	27 40 54 48 80	1B 28 36 30 50	PC Abicomp Portugal

Print Attributes

ESC (s + 1 U	27 40 115 43 49 85	1B 28 73 2B 31 55	Superscripts
ESC (s - 1 U	27 40 115 45 49 85	1B 28 73 2D 31 55	Subscripts
ESC (s 0 U	27 40 115 48 85	1B 28 73 30 55	Clears Superscripts/ Subscripts
ESC (s 0 P	27 40 115 48 80	1B 28 73 30 50	Selects Fixed Horizontal Spacing
ESC (s 1 P	27 40 115 49 80	1B 28 73 31 50	Selects Proportional Horizontal Spacing
ESC (s *n* H	27 40 115 *n* 72	1B 28 73 *n* 48	Defines Fixed Horizontal Pitch
ESC (s 5 H	27 40 115 53 72	1B 28 73 35 48	Selects 5 cpi pitch
ESC (s 6 H	27 40 115 54 72	1B 28 73 36 48	Selects 6 cpi pitch
ESC (s 8.33 H	27 40 115 56 46 51 51 72	1B 28 73 38 2E 33 33 48	Selects 8.33 cpi pitch
ESC (s 10 H	27 40 115 49 48 72	1B 28 73 31 30 48	Selects 10 cpi pitch
ESC (s 12 H	27 40 115 49 50 72	1B 28 73 31 32 48	Selects 12 cpi pitch
ESC (s 16.67 H	27 40 115 49 54 46 54 55 72	1B 28 73 31 36 2E 36 37 48	Selects 16.67 cpi pitch
ESC (s 20 H	27 40 115 50 48 72	1B 28 73 32 30 48	Selects 20 cpi pitch
ESC (s 24 H	27 40 115 50 52 72	1B 28 73 32 34 48	Selects 24 cpi pitch
ESC (s 33.33 H	27 40 115 51 51 46 51 51 72	1B 28 73 33 33 2E 33 33 48	Selects 33.33 cpi pitch
ESC (s *n* V	27 40 115 *n* 86	1B 28 73 *n* 56	Defines Character Height
ESC (s 4.25 V	27 40 115 52 46 50 53 86	1B 28 73 34 2E 32 35 56	Selects 4.25 point character height
ESC (s 6 V	27 40 115 54 86	1B 28 73 36 56	Selects 6 point character height
ESC (s 9.5 V	27 40 115 57 46 53 86	1B 28 73 39 2E 35 56	Selects 9.5 point character height
ESC (s 12 V	27 40 115 49 50 86	1B 28 73 31 30 56	Selects 12 point character height
ESC (s 24 V	27 40 115 50 52 86	1B 28 73 32 34 56	Selects 24 point character height
ESC (s 0 S	27 40 115 48 83	1B 28 73 30 53	Upright Print Style
ESC (s 1 S	27 40 115 49 83	1B 28 73 31 53	Italic Print Style
ESC (s 0 B	27 40 115 48 66	1B 28 73 30 42	Medium Stroke Intensity
ESC (s 3 B	27 40 115 51 66	1B 28 73 33 42	Bold Stroke Intensity
ESC (s *n* T	27 40 115 *n* 84	1B 28 73 *n* 54	Defines Character Typeface
ESC (s 3 T	27 40 115 51 84	1B 28 73 33 54	Selects Courier typeface
ESC (s 5 T	27 40 115 53 84	1B 28 73 35 54	Selects Team Nordic typeface
ESC (s 6 T	27 40 115 54 84	1B 28 73 36 54	Selects Letter Gothic typeface
ESC (s 4101 T	27 40 115 52 49 48 49 84	1B 28 73 34 31 30 31 54	Selects BF Team typeface
ESC (s 4148 T	27 40 115 52 49 52 56 84	1B 28 73 34 31 34 38 54	Selects Linea typeface

(continued)

PRINT ATTRIBUTES (continued)			
ESC (s 1 Q	27 40 115 49 81	1B 28 73 31 51	NLQ Printing
ESC (s 9 Q	27 40 115 57 81	1B 28 73 39 51	DRAFT Printing
ESC (s 2 Q	27 40 115 50 81	1B 28 73 32 51	LETTER QUALITY Printing
ESC (s 3 Q	27 40 115 51 81	1B 28 73 33 51	Best Quality 0
ESC (s 4 Q	27 40 115 52 81	1B 28 73 34 51	Best Quality 1
ESC (s 5 Q	27 40 115 53 81	1B 28 73 35 51	Best Quality 2
ESC & d *n* D	27 38 100 *n* 68	1B 26 64 *n* 44	Defines Underscore
ESC & d 0 D	27 38 100 48 68	1B 26 64 30 44	Selects fixed single underscore (default)
ESC & d 1 D	27 38 100 49 68	1B 26 64 31 44	Selects fixed single underscore
ESC & d 2 D	27 38 100 50 68	1B 26 64 32 44	Selects fixed double underscore
ESC & d 3 D	27 38 100 51 68	1B 26 64 33 44	Selects variable single underscore
ESC & d 4 D	27 38 100 52 68	1B 26 64 34 44	Selects variable double underscore
ESC & d @	27 38 100 64	1B 26 64 40	Clears Underscore
ESC & k *n* E	27 38 107 *n* 69	1B 26 6B *n* 45	Underscore for One Line (0=one line; 1=continuous)

Page Format

ESC & l *n* A	27 38 108 *n* 65	1B 26 6C *n* 41	Defines Paper Format
ESC & l 0 A	27 38 108 48 65	1B 26 6C 30 41	Selects default paper format
ESC & l 1 A	27 38 108 49 65	1B 26 6C 31 41	Selects US Executive format
ESC & l 2 A	27 38 108 50 65	1B 26 6C 32 41	Selects US Letter format
ESC & l 3 A	27 38 108 51 65	1B 26 6C 33 41	Selects US Legal format
ESC & l 26 A	27 38 108 50 54 65	1B 26 6C 32 36 41	Selects A4 format
ESC & l 29 A	27 38 108 50 57 65	1B 26 6C 32 39 41	Selects A5 format
ESC & l 73 A	27 38 108 55 51 65	1B 26 6C 37 33 41	Selects A6 format
ESC & l 74 A	27 38 108 55 52 65	1B 26 6C 37 34 41	Selects note card #1 (4 x 6 in)
ESC & l 75 A	27 38 108 55 53 65	1B 26 6C 37 35 41	Selects note card #2 (5 x 8 in)
ESC & l 81 A	27 38 108 56 49 65	1B 26 6C 38 31 41	Selects COM 10 envelope size
ESC & l 90 A	27 38 108 57 48 65	1B 26 6C 39 30 41	Selects International DL envelope size
ESC & l 91 A	27 38 108 57 49 65	1B 26 6C 39 31 41	Selects International C5 envelope size
ESC & l 92 A	27 38 108 57 50 65	1B 26 6C 39 32 41	Selects International C6 envelope size
ESC & l 95 A	27 38 108 57 53 65	1B 26 6C 39 35 41	Selects International B6 envelope size
ESC & l 93 A	27 38 108 57 51 65	1B 26 6C 39 33 41	Selects US Executive format (for compatibility with older drivers)
ESC & l *n* L	27 38 108 *n* 76	1B 26 6C *n* 4C	Skip over Bottom of Form (1 = enables; 0 = disables)
ESC & l *n* D	27 38 108 *n* 68	1B 26 6C *n* 44	Line Feed (in LPI) (*n* may vary, compatibly with font used)
ESC & l *n* C	27 38 108 *n* 67	1B 26 6C *n* 43	Line Feed (in *n*/48 in) (1 *n* 126)
ESC & l *n* P	27 38 108 *n* 80	1B 26 6C *n* 50	Page Length (*n* may vary, compatibly with physical page size used)
ESC =	27 61	1B 3D	Half Line Feed Forward
ESC & a *n* L	27 38 97 *n* 76	1B 26 61 *n* 4C	Left Margin (0 *n* 78; with 10 cpi pitch)
ESC & a *n* M	27 38 97 *n* 77	1B 26 61 *n* 4D	Right Margin (1 *n* 79; with 10 cpi pitch)
ESC 9	27 57	1B 39	Clears Left and Right Margins

(continued)

PAGE FORMAT (continued)			
ESC & l *n* L	27 38 108 *n* 76	1B 26 6C *n* 4C	Skip over Bottom of Form (1 = enables; 0 = disables)
ESC & l *n* D ESC & l *n* C	27 38 108 *n* 68 27 38 108 *n* 67	1B 26 6C *n* 44 1B 26 6C *n* 43	Line Feed (in LPI) (*n* may vary, compatibly with font used) Line Feed (in *n*/48 in) (1 *n* 126)
ESC & l *n* P	27 38 108 *n* 80	1B 26 6C *n* 50	Page Length (*n* may vary, compatibly with physical page size used)
ESC =	27 61	1B 3D	Half Line Feed Forward
ESC & a *n* L ESC & a *n* M ESC 9	27 38 97 *n* 76 27 38 97 *n* 77 27 57	1B 26 61 *n* 4C 1B 26 61 *n* 4D 1B 39	Left Margin (0 *n* 78; with 10 cpi pitch) Right Margin (1 *n* 79; with 10 cpi pitch) Clears Left and Right Margins
ESC & l *n* E	27 38 108 *n* 69	1B 26 6C *n* 45	Top of Form (TOF) (*n* = no. of print lines)
ESC & l *n* F	27 38 108 *n* 70	1B 26 6C *n* 46	Print Area Length (*n* = no. of print lines, compatibly with physical page size less TOF)

Vertical Positioning of Cursor

ESC & a *n* R	27 38 97 *n* 82	1B 26 61 *n* 52	Positioning on line “n” (the value of *n* is limited to the number of lines per page; first print line on page = 0)
ESC & a + *n* R ESC & a - *n* R	27 38 97 43 *n* 82 27 38 97 45 *n* 82	1B 26 61 2B *n* 52 1B 26 61 2D *n* 52	Positioning “n” lines forward Positioning “n” lines back
ESC * p *n* Y	27 42 112 *n* 89	1B 2A 70 *n* 59	Positioning on dot “n” (the dot positions are numbered from the top margin; one dot = 1/300 in)
ESC * p + *n* Y ESC * p - *n* Y	27 42 112 43 *n* 89 27 42 112 45 *n* 89	1B 2A 70 2B *n* 59 1B 2A 70 2D *n* 59	Positioning “n” dots forward Positioning “n” dots back
ESC & a *n* V	27 38 97 *n* 86	1B 26 61 *n* 56	Positioning on decipoint “n” (the decipoint positions are numbered from the top margin; one decipoint = 1/720 in)
ESC & a + *n* V ESC & a - *n* V	27 38 97 43 *n* 86 27 38 97 45 *n* 86	1B 26 61 2B *n* 56 1B 26 61 2D *n* 56	Positioning “n” decipoints forward Positioning “n” decipoints back

Horizontal Positioning of Cursor

ESC & a *n* C	27 38 97 *n* 67	1B 26 61 *n* 43	Positioning first print position in column “n” (the horizontal movement is calculated from the left margin; the number of columns per line depends on the print pitch)
ESC & a + *n* C	27 38 97 43 *n* 67	1B 26 61 2B *n* 43	Positioning “n” columns to the right
ESC & a - *n* C	27 38 97 45 *n* 67	1B 26 61 2D *n* 43	Positioning “n” columns to the left
ESC * p *n* X	27 42 112 *n* 88	1B 2A 70 *n* 58	Positioning first print position on dot “n” (the dot positions are numbered from the leftmost print position; one dot=1/300 in)
ESC * p + *n* X	27 42 112 43 *n* 88	1B 2A 70 2B *n* 58	Positioning “n” dots to the right
ESC * p - *n* X	27 42 112 45 *n* 88	1B 2A 70 2D *n* 58	Positioning “n” dots to the left
ESC & a *n* H	27 38 97 *n* 72	1B 26 61 *n* 48	Positioning first print position on decipoint “n” (the decipoint positions are numbered from the leftmost print position; one decipoint = 1/720 in)
ESC & a + *n* H	27 38 97 43 *n* 72	1B 26 61 2B *n* 48	Positioning “n” decipoints to the right
ESC & a - *n* H	27 38 97 45 *n* 72	1B 26 61 2D *n* 48	Positioning “n” decipoints to the left
ESC & k *n* H	27 38 107 *n* 72	1B 26 6B *n* 48	Horizontal Motion Index (HMI) n/120 in

Graphic Printing

ESC * t *n* R	27 42 116 *n* 82	1B 2A 74 *n* 52	Graphic Resolution
ESC * t 75 R	27 42 116 55 53 82	1B 2A 74 37 35 52	75 dpi print density
ESC * t 100 R	27 42 116 49 48 48 82	1B 2A 74 31 30 30 52	100 dpi print density
ESC * t 150 R	27 42 116 49 53 48 82	1B 2A 74 31 35 30 52	150 dpi print density
ESC * t 300 R	27 42 116 51 48 48 82	1B 2A 74 33 30 30 52	300 dpi print density
ESC * r *n* S	27 42 114 *n* 83	1B 2A 72 *n* 53	Graphic Printing Width (*n* depends on the width of the image created and is limited by the page width)
ESC * b 0 M	27 42 98 48 77	1B 2A 62 30 4D	Normal Graphic Printing
ESC * b 1 M	27 42 98 49 77	1B 2A 62 31 4D	Compacted Mode 1
ESC * b 2 M	27 42 98 50 77	1B 2A 62 32 4D	Compacted Mode 2
ESC * b 3 M	27 42 98 51 77	1B 2A 62 33 4D	Compacted Mode 3
ESC * b 9 M	27 42 98 57 77	1B 2A 62 39 4D	Compacted Mode 9

(continued)

GRAPHIC PRINTING (continued)			
ESC * r *n* Q	27 42 114 *n* 81	1B 2A 72 *n* 51	Graphic Printing Quality
ESC * r 0 Q	27 42 114 48 81	1B 2A 72 30 51	Default value (LQ)
ESC * r 1 Q	27 42 114 49 81	1B 2A 72 31 51	NLQ
ESC * r 2 Q	27 42 114 50 81	1B 2A 72 32 51	Letter Quality
ESC * r 9 Q	27 42 114 57 81	1B 2A 72 39 51	Draft
ESC * r *n* A	27 42 114 *n* 65	1B 2A 72 *n* 41	Start Graphic Printing (*n* = 0, start at left margin; *n* = 1, start at current cursor position)
ESC * b *n* W..	27 42 98 *n* 87 ..	1B 2A 62 *n* 57 ..	Send Data for Graphic Printing (n is the data for one pixel raster row)
ESC * b *n* X	27 42 98 *n* 88	1B 2A 62 *n* 58	Horizontal (X) Offset (n is a number of blank dots - a multiple of eight - inserted, starting from the left hand margin, at the beginning of the raster row; one dot = 1/300 in)
ESC * b *n* Y	27 42 98 *n* 89	1B 2A 62 *n* 59	Vertical (Y) Offset (n is a number of blank dots - a multiple of eight - inserted before the raster row, starting from the top margin; one dot = 1/300 in)
ESC * r B	27 42 114 66	1B 2A 72 42	End Graphic Printing
ESC * r C	27 42 114 67	1B 2A 72 43	End Graphic Printing
ESC * g *n* W	27 42 103 *n* 87	1B 2A 67 *n* 57	Definition of graphic planes
ESC * p *n* N	27 42 112 *n* 78	1B 2A 70 *n* 4E	Graphic Printing Direction
ESC * p 0 N	27 42 112 48 78	1B 2A 70 30 4E	Default
ESC * p 1 N	27 42 112 49 78	1B 2A 70 31 4E	Bidirectional
ESC * p 2 N	27 42 112 50 78	1B 2A 70 32 4E	Left to right
ESC * p 3 N	27 42 112 51 78	1B 2A 70 33 4E	Right to left
ESC * o *n* Q	27 42 111 *n* 81	1B 2A 6F *n* 51	Shingling
ESC * o 0 Q	27 42 111 48 81	1B 2A 6F 30 51	No shingling
ESC * o 1 Q	27 42 111 49 81	1B 2A 6F 31 51	50% shingling (2 passes)
ESC * o 2 Q	27 42 111 50 81	1B 2A 6F 32 51	25% shingling (4 passes)

Others

ESC E	27 69	1B 45	Logical Reset
ESC z	27 122	1B 7A	Autodiagnostics
ESC Y	27 89	1B 59	Code Printing
ESC Z	27 90	1B 5A	Disables Code Printing
ESC * r K	27 42 114 75	1B 2A 72 4B	Tansmits printer identification
ESC & p *n* X .	27 38 112 *n* 88..	1B 26 70 *n* 58 ..	Transparent Printing Mode (0 *n* 32,767)
ESC & s *n* C	27 38 115 *n* 67	1B 26 73 *n* 43	Wrap Around (n = 0, enables; *n* = 1, disables)
ESC & k *n* G	27 38 107 *n* 71	1B 26 6B *n* 47	Print Line Closure
ESC & k 0 G	27 38 107 48 71	1B 26 6B 30 47	CR=CR; LF=LF; FF=FF
ESC & k 1 G	27 38 107 49 71	1B 26 6B 31 47	CR=CR+LF; LF=LF; FF=FF
ESC & k 2 G	27 38 107 50 71	1B 26 6B 32 47	CR=CR; LF=LF+CR; FF=FF+CR
ESC & k 3 G	27 38 107 51 71	1B 26 6B 33 47	CR=CR+LF; LF=LF+CR; FF=FF+CR
ESC & k *n* F	27 38 107 *n* 70	1B 26 6B *n* 46	SO/SI enabled for One Line (n = 0, SO/SI enabled for one line; n = 1, standard function for SO/SI)
ESC & k *n* W	27 38 107 *n* 87	1B 26 6B *n* 57	Print Direction
ESC & k 0 W	27 38 107 48 87	1B 26 6B 30 57	Left to right
ESC & k 1 W	27 38 107 49 87	1B 26 6B 31 57	Bi-directional
ESC & k 2 W	27 38 107 50 87	1B 26 6B 32 57	Right to left
ESC& k *n* W	27 38 107 *n* 87	1B 26 6B *n* 57	Text Scaling (n = 5, Text scaling disabled; n = 6, Text scaling enabled)
ESC & l 0 H	27 38 108 48 72	1B 26 6C 30 48	Paper Expulsion
ESC & l 1 H	27 38 108 49 72	1B 26 6C 31 48	Paper Feed from Paper Tray
ESC & l 3 H	27 38 108 51 72	1B 26 6C 33 48	Manual Paper Feed (only sheet)

Color Printing

ESC * b *n* S	27 42 98 *n* 83	1B 2A 65 *n* 53	Seed row select source plane to compacted modes 3 and 9 (graphics)
ESC * b *n* V	27 42 98 *n* 86	1B 2A 65 *n* 56	Data Transfer in Planes (n = number of bytes of binary data to be sent to the printer.)
ESC * r *n* U	27 42 114 *n* 85	1B 2A 72 *n* 55	Selects Monochrome/Color Printing
ESC * r -3 U	27 42 114 45 51 85	1B 2A 72 2D 33 55	Selects color palette: cyan, magenta, yellow
ESC * r 0 U	27 42 114 48 85	1B 2A 72 30 55	Selects monochrome printing
ESC * r 1 U	27 42 114 49 85	1B 2A 72 31 55	Selects monochrome printing
ESC * r 3 U	27 42 114 51 85	1B 2A 72 33 55	Selects color palette: red, green, blue
ESC * o *n* D	27 42 111 *n* 68	1B 2A 6F *n* 44	Image Depletion
ESC * o 1 D	27 42 111 49 68	1B 2A 6F 31 44	No depletion
ESC * o 2 D	27 42 111 50 68	1B 2A 6F 32 44	25% depletion
ESC * o 3 D	27 42 111 51 68	1B 2A 6F 33 44	50% depletion

Programmable Printer Features

This appendix contains a brief descripton of the printer settings, using the printer setup utility programme.

Factory Settings

When you receive the printer, its basic operating parameters are already set with pre-defined factory settings (default settings for PCL III+ emulation). These are the settings which appear in the print test the very first time you run it (see specific section in *Troubleshooting*).

Your printer emulation is set to be compatible with the diskette included with your printer. You should not have to vary anything.

The factory settings for the printer parameters are:

Feature	Default setting
Paper format	**Letter**
Paper device	**ASF**
Perforation skip mode	**ON**
Text scale mode	**OFF**
Graphic resolution	**300 dpi**
Line terminator	**Normal (CR=CR, LF=LF, FF=FF)**
Print quality	**LQ (Letter Quality)**
Width type	**Normal**
Orientation	**Portrait**
Type style (Font)	**Courier Upright Portrait 10 cpi 12 pt**
Character set	**CP 437 International**

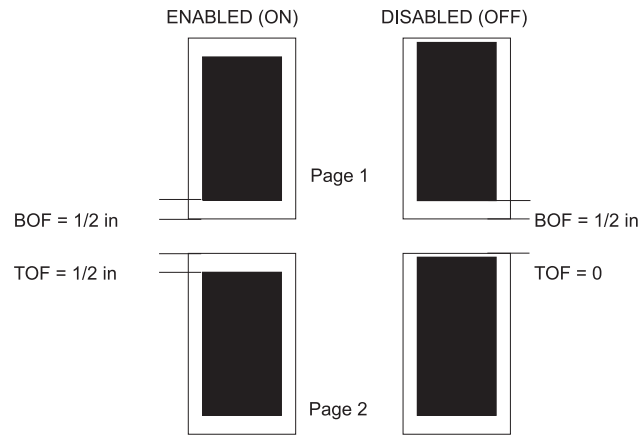
User-Definable Parameters

The following tables give a brief description of all the features which can be selected using the printer set-up utility

Feature	Description
Paper Format	Indicates the type and dimensions of the document to be printed: Letter; Legal; A4; vertical A5; COM10; DL; C5; Executive; Free; C6; B6, note cards.
Paper Device	Means by which paper is fed to the printer: ASF, manual.
Perforation skip mode (Skip TOF)	Affects only text, introducing a half inch (12.7 mm) non-printable area at the top of each page. In most cases, Perforation skip mode ON will meet your requirements. When Perforation skip mode is *ON*, a line that overruns the lower limit of the text area will be printed below the top margin of the next page. When Perforation skip mode is *OFF*, the line will be printed on the first physical print line of the new page.

(continued)

Perforation skip mode (Skip TOF) (continued)

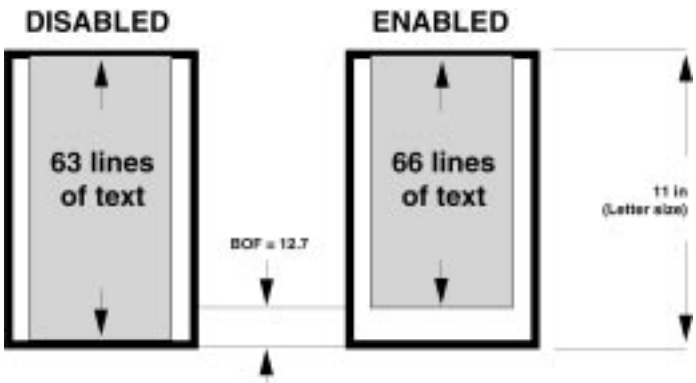


Print Quality	Type of printing quality: LQ (Letter Quality), Draft, etc.
Graphic resolution	Graphic printing resolution (dots per inch - dpi): 75 to 600.
Line Terminator	Normal: CR=CR; LF=LF; FF=FF AutoLF: CR=CR+LF; LF=LF; FF=FF AutoCR: CR=CR; LF=LF+CR; FF=FF+CR AutoCRLF: CR=CR+LF; LF=LF+CR; FF=CR+FF

Character Set	Character Set: set of national or specialized characters/ symbols to be used for printing: CP 437 International Roman 8 PC-8 Denmark/Norway CP 850 (multilingual) ECMA 94 Latin 1 ISO 4 United Kingdom ISO 21 Germany ISO 69 France ISO 15 Italy ISO 60 Norway 1 ISO 61 Norway 2 ISO 11 Sweden Names ISO 10 Sweden ISO 17 Spain ISO 6 USASCII ISO 2 IRV ISO 16 Portugal ISO 14 JIS ASCII Legal CP 860 Portugal UNIX International CP 863 French Canadian PC Abicomp International PC Abicomp Portugal

Type Style (Font)	Shape, size, spacing, etc. of the character/ symbol set printed (all fonts are printed both in portrait and landscape): Courier Upright 10cpi 12pts Courier Italic 10cpi 12pts Courier Upright 16.67cpi 12pts Letter Gothic Upright 10cpi 12pts Letter Gothic Upright 12cpi 12pts Letter Gothic Italic 12cpi 12pts Letter Gothic Upright 16.67cpi 9.5pts BF Team Upright PS 14pts BF Team Italic PS 14pts BF Team Upright PS 12pts BF Team Italic PS 12pts BF Team Upright PS 10pts BF Team Italic PS 10pts BF Team Upright PS 8pts BF Team Italic PS 8pts Linea Upright PS 14pts Linea Upright PS 12pts Linea Italic PS 12pts Linea Upright PS 10pts Linea Italic PS 10pts Linea Upright PS 8pts

Text Scale Mode	Affects only text, reducing automatically the current Line Feed setting to maintain a half-inch (12.7 mm) non-printable area at the foot of the page even for the maximum number of print lines per page. ***Possible ONLY with portrait orientation selected and the Perforation Skip feature DISABLED***.



Width Type	Defines the dimensions of the character/symbol printed, according to the FONT selected (see parameter). Some fonts are not affected: normal; half width; half height; half width and half height.

Product Characteristics

Printing Technique
Non-impact, bubble ink jet, with water-resistant ink

Color and Monochrome Print Heads, either with Replaceable Ink Cartridge or disposable

Throughput

Windows® environment:
up to 6 pages per minute (ppm)
N.B.: this value may vary depending on the print mode (Draft/LQ), the software application and/or the type of computer used.

Paper Handling
Automatic sheet feeder (ASF)
Manual (single documents)

ASF Capacity
Plain paper : up to 120 sheets (21 lbs paper)
Envelopes : up to 25 envelopes (21 lbs paper)
Note cards/thicker documents : up to 10 pieces (28 lbs paper)
Special printing media : up to 40 sheets (24 lbs paper)

Paper Type
Plain office paper
Transparencies
High resolution glossy/coated papers
Envelopes
Note cards
T-Shirt Transfer

Paper Weight
Single sheets: 15 to 30 lbs
Envelopes: 19 to 25 lbs
Note cards/thicker documents: 25 to 35 lbs
Special printing media : 24 to 30 lbs

Paper Size
Single sheets: A4, A5, Letter, Legal, Executive
Envelopes: COM-10, DL, C5, C6, B6
Note cards: 4 x 6 in, 5 x 8 in, A6

Graphic Density
From 75 to 600 dpi

Resident Emulation
PCL III extended

Resident Fonts

- Courier:
  orientation: Portrait and Landscape
  pitch: 5, 8.33, 10, 16.67, 20, 33.34 cpi
  size: 6, 12, 24 points
  style: Upright (Italic 5, 10, 20 cpi)

- Letter Gothic:
  orientation: Portrait and Landscape
  pitch: 5, 6, 8.33, 10, 12, 16.67, 20, 24, 33.34 cpi
  size: 4.75, 6, 9.5, 12 points
  style: Upright (Italic 6, 12, 24 cpi; 6, 12, 24 points)

- BF Team:
  orientation: Portrait and Landscape
  pitch: Proportional
  size: 4, 5, 6, 7, 8, 10, 12, 14 points
  style : Upright and Italic

- Linea:
  orientation: Portrait and Landscape
  pitch: Proportional
  size: 4, 5, 6, 7, 8, 10, 12, 14 points
  style: Upright (Italic 5, 6, 10, 12 points)

Character Sets
CP 437 International; Roman 8; PC 8 Denmark/ Norway; CP 850 Multilingual; ECMA-94 Latin 1; ISO 4 - United Kingdom; ISO 21 - Germany; ISO 69 - France; ISO 15 - Italy; ISO 60 - Norway 1; ISO 61 - Norway 2; ISO 11 - Sweden Names; ISO 10 - Sweden; ISO 17 - Spain; ISO 6 - ASCII; ISO 2 - IRV; ISO 16 - Portugal; ISO 14 - JIS ASCII; Legal; CP 860 Portugal; UNIX International; CP 863 French Canadian; PC Abicomp International; PC Abicomp Portugal

Interface
Parallel Centronics (Bi-directional)

RAM
1 Mbyte

Operating Environment
Temperature: 60 - 95 ^{o}F - 15 to 35 ^{o}C
Relative Humidity: 20% - 80%, without condensation

Sound level
49 dB in LQ printing mode (continuous)

Product Certification

For USA and Canada

Safety regulations:
USA: UL 1950/478
Canada: CSA C22-2
Electromagnetic compatibility:
FCC part 15 Class B

Electrical Characteristics

Voltage:
- 110 - 120 V, +/- 10%; 50 - 60 Hz

Power absorbed:
- < 26W, in printing mode
- < 2 W, in standby mode

Physical Characteristics

Printer closed

Height	9.29 in (236 mm)
Width	18.11 in (460 mm)
Depth	18.30 in (465 mm)
Weight	9.9 lbs (4.5 kg)

Getting Service and Support

Getting Help from NEC

Printer Technical Support is available Monday through Friday, between the hours of 8:30AM and 8:00PM (Eastern Standard Time) at 1-800-632-4650. Technical support for this printer is provided free of charge during the one year factory warranty.

Information regarding out-of-warranty repair is available by calling the National Service Response Center at 1-800-632-4650.

You may also send electronic mail to support via the following methods:
Internet address: tech-support@nectech.com
AOL keyword: NECTECH
Microsoft Network: NECTECH

You will always be required to provide information regarding where and when the printer was purchased, regardless of whether we have received your warranty card.

SuperScript 750C Printer Limited Warranty

The SuperScript 750C is warranted for one year from the date of purchase under the NEC SuperScript Limited Warranty. The warranty works as follows:

- The Customer calls NEC Customer Service and Support at 800-632-4650.
- A recorded message will provide a list of various service and support departments. Press the correct number for Technical Support.

(**Note:** Many times a simple problem can be averted by speaking with a technical support representative first).
If it is determined that the printer is defective, the support representative will transfer you to another department to set up the warranty exchange process.

SuperScript 750C Printer Limited Warranty

If you wish to receive a replacement printer by overnight delivery, the service representative will obtain a major credit card number from you, along with your shipping address. An electronic credit check will be made in the amount of the current price of the printer. If the defective printer is not returned to NEC within 15 days, or you cannot prove that your printer is still under warranty, your account will be debited in this amount.

You must return the defective printer, properly packaged in the original or replacement printer packaging, within fifteen (15) days or your credit card account will be debited for the current price of the the SuperScript 750C.

If you do not wish to provide a credit card number to NEC, the service representative will provide you with an MRA (Material Return Authorization) number for return of the defective printer at your own expense. You must package the printer in its original packaging, or equivalent, mark the package with the MRA number, and return it to the address provided. Upon receipt of the defective printer, NEC will ship a replacement by overnight delivery.

Warranty

NEC TECHNOLOGIES, INC. (hereinafter NECTECH) warrants this Product to be free of defects in material and workmanship and agrees to repair or replace any part of the enclosed unit which proves defective under these terms and conditions.

Warranty Length

Labor is warranted for one (1) year from the date of the first consumer purchase. Parts are warranted for one (1) year from the date of the first consumer purchase.

Warranty Coverage

This warranty may be enforced only by the first consumer purchaser and it is not transferable.

Except as specified below, this warranty covers all defects in material or workmanship in this Product. The following are not covered by this warranty:

1. Any Product which is not distributed in the U.S.A. or Canada by NECTECH or which is not purchased in the U.S.A. or Canada by the first consumer purchaser.

2. Any Product on which the serial number has been defaced, modified or removed.

3. Damage, deterioration or malfunction resulting from:

(a) Accident, misuse, abuse, neglect, fire, water, lightning or other acts of nature, improper storage, unauthorized Product modification, or failure to follow instructions supplied with the Product.

(b) Alteration, repair or attempted repair by anyone not authorized by NECTECH.

(c) Any shipment of the Product (claims must be presented to the carrier).

(d) Removal or installation of the Product.

(e) Any other cause which does not relate to a Product defect.

4. Cartons, carrying cases, batteries, external cabinets, magnetic tapes, or any accessories used in connection with the Product.

5. This warranty covers only NECTECH-supplied components. Service required as a result of third party components is not covered under this warranty.

Warranty Support

NECTECH will pay labor and material expenses for covered items, but we will not pay for the following:

1. Removal or installation charges.

2. Costs of initial technical adjustments (set-up), including adjustment of user controls.

3. Payment of shipping and related charges incurred in returning the Product for warranty repair.

Getting Warranty Service

You must return this Product directly to NECTECH factory for warranty service. It shall be your obligation and expense to ship the Product, freight prepaid, or to deliver it to a NECTECH authorized service center or other facility authorized by NECTECH to render the warranty services, in either the original package or a similar package affording an equal degree of protection.

NECTECH will send a replacement printer which will be, at NECTECH's option, new or like new, and will meet all of the specification of the replaced printer. The replacement printer will be shipped to you at NECTECH's expense by overnight delivery within the United States, upon receipt of you defective printer, or upon receipt of a major credit card number to guarantee receipt of the defective printer. The warranty period on any replacement printer shall be either (1) the remaining balance of the original one (1) year term, or (2) ninety (90) days, whichever is longer. With the exception of the duration, the terms and conditions of this warranty shall apply to any replacement printer.

NECTECH may require that you provide the original bill of sale or receipt as proof of purchase in order to obtain warranty service. Please retain such proof of purchase with your records.

Limitation of Damages and Implied Warranties

NECTECH'S SOLE LIABILITY FOR ANY DEFECTIVE PRODUCT IS LIMITED TO THE REPAIR OR REPLACEMENT OF THE PRODUCT AT OUR OPTION. NECTECH SHALL NOT BE LIABLE FOR:

1. DAMAGE TO OTHER PROPERTY CAUSED BY ANY DEFECTS IN THIS PRODUCT, DAMAGES BASED UPON INCONVENIENCE, LOSS OF USE OF THE PRODUCT, LOSS OF TIME OR DATA, COMMERCIAL LOSS; OR

2. ANY OTHER DAMAGES, WHETHER INCIDENTAL, CONSEQUENTIAL OR OTHERWISE.

THIS WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SOME STATES DO NOT ALLOW THE EXCLUSION OF IMPLIED WARRANTIES OR THE LIMITATION OR EXCLUSION OF LIABILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES. THEREFORE, THE ABOVE EXCLUSIONS OR LIMITATIONS MAY NOT APPLY TO YOU.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

For information, telephone 1-800-632-4650.

Note: All Products returned to NECTECH for service MUST have prior approval; this may be obtained by calling the above number.

This Product is warranted in accordance with the terms of this limited warranty. Customers are cautioned that Product performance is affected by system configuration, software, the application, customer data, and operator control of the system, among other factors. While NEC TECHNOLOGIES, INC. Products are considered compatible with many systems, the specific functional implementation by customers of the Product may vary. Therefore, the suitability of a Product for a specific purpose or application must be determined by the customer and is not warranted by NECTECH.

Glossary

Alignment
Control/adjustment of the horizontal and vertical printing accuracy by means of a resident operator function.

ASCII-table
(American Standard Code of Information Interchange); standardized code and character assignment table from 0 to 127 decimal.

ASF
(Automatic Sheet Feeder); paper insertion device incorporated in the upper rear part of the printer.

BIM
(Bit Image Mode); graphic printing mode, in which a byte is not interpreted as character. Its bits cause the individual nozzles of the print head to print or not.

bit
Smallest information item; a signal set to 0 or 1. Eight bits make one byte (character).

BOF
(Bottom Of Form); the area at the foot of each form, in which printing will not be possible (it will be skipped automatically).

buffer
Built-in memory in the printer, in which data will be stored until it is printed.

byte
Standard unit for character/symbol representation. A byte consists of 8 bits.

character generator
Resident printer program, which converts a character code (byte) into a pixel matrix for printing.

character set
Assignment table between a code and a specific printable character (usually in connection with national languages).

cpi
Characters per inch; indicates the number of characters which can be printed in one inch.

dB (decibel)
Unit of measurement for sound.

default
Standard initial setting of a feature or a parameter. Can usually be modified.

dithering
Printing method by which color dots are combined on a document to achieve a range of colors.

dot size
Size of the smallest element used to create the character image (default value: 1/72 in).

dpi
Dots per inch; indicates the number of dots which can be printed in one inch.

driver
Software program which controls output to the printer and does necessary code conversions between application program and printer.

economy print mode
Low dot resolution print mode. Allows ink saving.

elementary spacing
Smallest possible horizontal or vertical movement of the print head.

emulation
Set of commands that can be interpreted by the printer and/or driver.

ESCAPE character
Special character with the decimal value 27 (ESC), which tells the printer that the following character(s) form a control sequence.

ESCAPE sequence
Set of characters, starting with the ESC character, which controls an action of the printer as defined by its emulation.

factory settings
Printer settings defined by the manufacturer; also known as default settings (see item).

firmware
Built-in control intelligence of the printer which cannot be changed by the user.

font
Set of characters available in a certain typeface and size (see also items “cpi” and “dot size”).

grayscale
Printing method by which dots from a color file are combined on a document which is printed in monochrome (black) and shades of gray.

halftoning
Printing method by which shades of gray or of color are produced by the variable concentration of dots. When printing in color, the proximity of different colored ink dots creates the impression of new colors.

handshaking
Signal exchange between the printer and the controlling system, which regulates the loading of data to the printer’s buffer and avoids overflow of this buffer.

hex-dump
Printing mode in which the transmitted characters (and also control codes) are printed as two digit hexadecimal codes. Used for debugging.

initialization
Process at printer switch-on in which the printer executes an automatic self-diagnosis of its hardware and loads the settings as defined in programming (set up). Reset by command also causes (re-)initialization of the printer (but without hardware check).

interface
Physical (with cable) and logical (synchronization and interpretation of signals) connection of the printer with a host system/computer.

ISO table
(International Standardization Organization); a convention which assigns to certain ASCII codes (see item) a one-per-nation set of special European characters.

landscape
Page orientation in which the characters are printed along the long side of the paper.

LOCAL condition
Another word for the printer Off-Line state (see item).

nozzles
Microscopic holes on the print head through which ink is expelled to form the character/symbol to be printed.

off-line
Printer operating condition in which data and commands via interface are accepted until the input buffer is full, but are not executed. It permits the execution of operations commanded via the operator panel.

on-line
Operating condition in which the printer is completely controlled by its host.

parallel interface
Means of connecting the printer to a computer with a defined standard plug and pin assignment . Data is transmitted by 8 “parallel” lines, i.e. one complete byte at a time.

parameter
A command or feature, the value of which may be varied (see setting).

PCL commands
(Printer Command Language); resident emulation.
A proprietary name of Hewlett-Packard.

pitch
The character spacing measured in characters per inch (cpi - see item).

portrait
Page orientation in which the characters are printed across the short side of the paper.

print buffer
An intermediate buffer in which data coming from the line buffer is stored, until the transmission of a code which commands printing.

print quality
LQ (Letter Quality); printing with a high character definition which approaches solid character profiles.
Draft; printing with reduced character definition, to give a higher print speed.

printer monitor
On-screen user interface, containing information on the current print job and printer care operations that can be run by the user.

RAM
(Random Access Memory); a memory area which may be written to repeatedly, e.g. the print buffer (volatile, i.e. loses contents when overwritten or at printer switch-off).

release X.X
Indicates the version/updating level of the firmware.

reset
Commands the printer to clear the buffer and all temporary settings, returning to an initial switch-on state.

resolution
Print density defined as the number of dots printed per inch.

ROM
(Read Only Memory); a non-volatile memory area that can be read (used) but not modified and contains the built-in character generator, command code emulation, etc.

scaleable font
A file containing the basic elements of a set of characters the size of which can be enlarged and/or reduced (within the specifications indicated) by the user.

setting
The value of a parameter, command or feature.

SET-UP
An operating procedure in which it is possible to define the printer parameter settings and memorize them.

standby
Printer status in which the printer is powered but dormant. Occurs after a certain period of inactivity.

throughput
The optimum average output (in pages per minute) of the printer.

TOF
(Top Of Form); the space on top of a form in which printing is not possible. Will be skipped automatically on the execution of an FF.

TrueType font
Another name for bit-map fonts.

user settings
Parameter values defined by the user.

word length
(7 or 8 bits); refers to the format in which a byte of data is transmitted to and interpreted by the printer.

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NOTE: This equipment has been tested and found to comply with the limits for a CLASS B digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

. Reorient or relocate the receiving antenna.
. Increase the separation between the equipment and receiver.
. Connect the equipment into an outlet of a circuit different from that to which thereceiver is connected.
. Consult the dealer or an experienced radio/TV technician for assistance.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
Connection of peripherals requires the use of grounded shielded signal cables.

This digital equipment does not exceed the CLASS B limits for radio noise emissions from digital apparatus set out in the interference-causing equipment standard entitled "Digital Apparatus", ICES-003 of the Industry Canada.

Ce dispositif numérique respecte les limites bruits radioélectriques applicables aux appareils numériques de CLASSE B prescrites dans la norme sur le matériel brouilleur : "Appareils Numériques", NMB-003 édictée par le ministère des Communications.

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